



Investing in rural people

## **Republic of Georgia**

---

### **Dairy Modernisation and Market Access Programme (DiMMA)**

#### **Final project design report**

Main report and appendices



## Contents

Currency equivalents	iii
Weights and measures	iii
Abbreviations and acronyms	iv
Map of the project area	vi
Executive Summary	vii
Logical Framework	xi
I. Strategic context and rationale	1
A. Country and rural development context	1
B. Rationale	5
II. Programme description	8
A. Programme area and target group	8
B. Development objective and impact indicators	13
C. Outcomes/Components	15
D. Lessons learned, adherence to IFAD policies, and the SECAP	27
III. Programme implementation	29
A. Approach	29
B. Institutional and organisational framework	30
C. Planning, M&E, learning and knowledge management	32
D. Financial management, procurement and governance	34
E. Supervision	37
F. Risk identification and mitigation	37
IV. Programme costs, financing, benefits and sustainability	38
A. Programme Costs	38
B. Programme Financing	39
C. Summary benefits and economic analysis	40
D. Sustainability	42

## Appendices

Appendix 1:	Country and rural context background	43
Appendix 2:	Poverty, targeting and gender	61
Appendix 3:	Country performance and lessons learned	85
Appendix 4:	Detailed Programme description	95
Appendix 5:	Institutional aspects and implementation arrangements	109
Appendix 6:	Planning, M&E and learning and knowledge management	155
Appendix 7:	Financial management and disbursement arrangements	160
Appendix 8:	Procurement	175
Appendix 9:	Programme cost and financing	181
Appendix 10:	Economic and Financial Analysis	205
Appendix 11:	Draft Programme implementation manual	217
Appendix 12:	Compliance with IFAD policies	221
Appendix 13:	SECAP Review Note	224

## Currency equivalents

Currency Unit	=	Georgian Lari (GEL)
EUR 1	=	3.0 GEL

## Weights and measures

1 kilogram	=	1000 g
1 000 kg	=	2.204 lb.
1 kilometre (km)	=	0.62 mile
1 metre	=	1.09 yards
1 square metre	=	10.76 square feet
1 acre	=	0.405 hectare
1 hectare	=	2.47 acres

## Abbreviations and acronyms

ACDA	Agricultural Cooperatives Development Agency
AMMAR	Agricultural Modernization, Market Access, and Resilience
AI	Artificial insemination
APMA	Agriculture Projects Management Agency
AMP	Agriculture Mechanization Project (USAID)
ASP	Agriculture Support Project (IFAD supported)
BP	Business Plan
CBSP	Capacity building service provider
CC	Climate Change
CSA	Climate Smart Agriculture*
CSN	Country Strategy Note
CSPE	Country Strategy and Programme Evaluation
CSVC	Climate smart value chain
DANIDA	Danish International Development Agency
DCFTA	Deep and Comprehensive Free Trade Agreement (EU)
DER	Department of External Relations, Ministry of Environmental Protection and Agriculture
DVCF	Dairy Value Chain Development Facility
EBRD	European Bank for Reconstruction and Development
ENPARAD	European Neighbourhood Programme for Rural Development
EOI	Expression of interest
EPI	Economic Prosperity Initiative (USAID project)
EU	European Union
EUR	Euro
FLSP	Farm level service provider
FAO	Food and Agriculture Organization of the United Nation
FBS	Financial Brokering Specialists
FI	Financial Institution
GAP	Good agricultural practices
GDP	Gross Domestic Product
GEF	Global Environment Fund
GEL	Georgian Lari
GILMD	Georgia Irrigation and Land Market Development (WB financed)
GoG	Government of Georgia
Ha	Hectare
HACCP	Hazardous Analysis and Critical Control Points
HH	Household
IFAD	International Fund for Agriculture Development
IFC	International Finance Corporation
IFI	International Financial Institution
IMF	International Monetary Fund
LAG	Livestock Action Group
LR	Landscape Restoration

MCC	Milk Collection Center
MFI	Micro finance institution
MEPA	Ministry of Environmental Protection and Agriculture
MESD	Ministry of Economy and Sustainable Development
MoF	Ministry of Finance
MSP	Multi-stakeholder process
NBFI	NBFI Non-Bank Financial Institution
NBG	National Bank of Georgia
NEO	New Economic Opportunities (USAID Project)
NGO	Non-governmental organization
NPL	Non-Performing Loans
OIE	World Organization for Animal Health
PIM	Programme implementation manual
PUA	Pasture Users Association
PY	Programme Year
REAP	Restoring Efficiency for Agricultural Production (USAID project)
ROI	Return on Investment
ToT	Training of trainers
UASCG	United Amelioration Systems Company of Georgia.
USAID	United States Agency for International Development
USD	United States Dollar
VC	Value Chain
WA	Withdrawal application

\* defined by the UN FAO as "agriculture that sustainably increases productivity, resilience (adaptation), reduces/removes greenhouse gasses (mitigation), and enhances achievement of national food security and development goals

## Map of the programme area

### Georgia

Dairy Modernisation and Market Access Programme (DiMMA)



The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

IFAD Map compiled by IFAD | 08-05-2018



## Executive Summary<sup>1</sup>

1. The Dairy Modernisation and Market Access (DiMMA) Programme aims at rural economic development and poverty reduction by contributing to the modernization and emergence of a competitive, diversified, resilient and sustainable dairy industry. It will enhance the livelihoods and resilience of smallholder dairy producers, especially in mountain areas, and improve the management of the natural resources on which they depend. DiMMA will aim to increase the income of at least 6,740 smallholder households - Of these, 4,220 will be linked to dairy value chains (VC) through partnerships with aggregators; 370 will be employed in new jobs in small enterprises in the programme area; 250 youth will start non-extractive livelihood activities that promotes pasture regeneration and 1,900 will benefit from improved productivity of pastures. In addition, DiMMA will support the development of 121 small enterprises (aggregators and farm level service providers) in the programme area creating the capacity to process 240 tons of milk per day in the programme area, bring 9,500 Ha of land under climate resilient management and improve the access to pastures by supporting the rehabilitation of 300 kilometres of roads.

2. **Programme area and target group:** The programme will start to be implemented in the three contiguous regions of Imereti, Samegrelo-Zemo Svaneti and Samtskhe-Javakheti. DiMMA's benefits will reach 3 categories of VC actors comprising; (i) smallholder dairy producers; (ii) farm level service providers (FLSPs); (iii) dairy aggregators, who will develop market linkages with the dairy producers. Non-commercial rural households will also benefit from pilot non-extractive livelihood projects that supports pasture regeneration and employment in small enterprises supported by the programme. Within each of these categories, DiMMA will have special focus on the inclusion of women and youth. During implementation and by the Mid Term Review it will be decided on whether to expand the Project Area to other regions.

3. **Programme overview:** DiMMA will broker the development of profitable linkages between target households and dairy aggregators in the programme areas by (i) assisting target households to improve their dairy production systems and increase the supply of superior dairy products based on market demand (ii) supporting dairy aggregators to modernise their equipment and procedures processes and increase their milk collection outreach to the target households and (iii) organising the target households and other VC actors into stakeholder platforms and Farmers' Organisations (FO) that undertake discussions/negotiations to ensure regular supply of critical volumes of high grade milk, required to generate economies of scale for all actors. Alongside, DiMMA will support the emergence and capacity development of FLSPs to supply the specialized services and inputs (e.g. fodder, veterinary services) which are required by the target households to achieve their dairy production targets. The FOs and stakeholder platforms will emerge as inclusive institutions stimulating policy dialogue and developing a strong enabling environment for supporting the growth and profitability of the dairy VCs.

4. **Cluster development approach:** DiMMA will follow a dairy cluster development approach to facilitate sufficient and regular availability of high grade milk, required to sustain the dairy processors and milk collection centres operating in the programme area. A dairy cluster will be an economic and geographic entity which includes a production basin, milk collection centres, as well as up- and downstream VC actors to which the producers and processors from the basin are connected. A total of 15 clusters will be developed in the project area in two phases - innovation and adoption phase:

---

<sup>1</sup> The mission consisted of Mr. Swandip Sinha (Team leader and Value Chain Specialist), Mr. Antonio Rota (Lead Technical Specialist on Livestock and Lead Technical Advisor, IFAD), Mr. Alban Bellinguez (Livestock Specialist), Mr Norman Messer (Institution Development Specialist, IFAD), Mr. Nicolas Tremblay (Environment and Climate Change Specialist, IFAD); Renaud Colmant (Environment and Climate Change Consultant, IFAD); Ms Agnese Tonnina (Economic and Financial Analyst, IFAD); Mr Enrico Mazzoli (Economist and Programme Management Support, IFAD), Ms Nancy Kaawe (Programming and Resource Analyst, IFAD); Mr. Levan Kobakhidze (National Livestock Expert). Ms. Dina Saleh (Country Programme Manager and Mission Leader, IFAD) guided and supervised the overall mission work from Georgia..

5. **Innovation phase (years 1 and 2):** This phase will be characterised by programme focus on developing 6 clusters in priority around existing aggregators. The dairy VCs in these clusters will be stabilised by: (i) brokering partnerships between progressive dairy producers and the aggregators; (ii) supporting demonstration of technical innovations in the farms of the progressive dairy producers; (iii) exposing other VC stakeholder to the demonstrations to develop their appetite for adopting these models; and (iv) developing dairy stakeholder platforms and FOs to strengthen the enabling framework of the dairy VCs.

6. **Adoption phase (years 3 to 6):** An additional 9 clusters will be selected through the involvement of the stakeholder platforms. This phase will be characterised by growing numbers of market vulnerable dairy producers being included in the dairy VCs through the adoption of the programme supported technologies and business models.

7. **4-Ps based implementation arrangements:** DiMMA's investments in the clusters will be based on 4-Ps (Public, Private, Producers Partnership) implementation arrangements aimed to develop profitable marketing linkages between the target households and sustainable dairy aggregators that increases their income, particularly the income of the target households. DiMMA will broker these linkages, and make them inclusive and competitive by addressing the challenges related to safety, regularity and volume of milk supplied by the target households. The 4-Ps approach will be initiated through the development of business plans (BP) at three levels: (i) producer level: focusing on the adoption of improved and hygienic dairy production systems by the target households to ensure regular supply of high grade milk and other dairy produce required by aggregators in the cluster (ii) FLSP level: aimed to increase the supply of inputs and services (fodder, veterinary care) to target households for improved and hygienic milk production and (iii) aggregator level: dwelling on increasing the demand for high grade milk and other dairy produce at the cluster level and on mechanisms to meet this demand through sustainable linkages to target households in these clusters.

8. **Financing the BPs:** Seed capital financing will be provided to meet the start-up financing requirements of target households, farm level service providers and aggregators during the early stages of cluster development and grant support to Pasture Users' Associations (PUA) to adopt pasture improvement measures to increase pasture productivity and adaptation to the effects of climate change. Seed capital financing will be provided through the Dairy Value Chain Development Facility (DVCF) of the programme. DVCF envisaged to be managed by the Agriculture Project Management Agency (APMA) and will meet 60 to 80% of the investment costs depending upon the nature of business and phase of financing - innovation or adoption.

9. Target households will be eligible for seed capital support to kick-start the improvement of their dairy production systems by adopting farm improvement measures such as milking machines, barns' renovation, etc; Young entrepreneurs can use seed capital support to initiate dairy development services in the programme areas, e.g. feed and input supply, artificial insemination (AI), veterinary services. They can also adopt non-extractive alternative livelihood activities (pilot only) for a more diversified rural economy, less dependent on limited natural resources affected by climate change (e.g. water, pastures); Aggregators can use seed capital assistance to expand their milk collection and processing chains to the production basins with higher concentration of the target households and for developing niche market production systems such as pasture collection and processing facilities.

10. DiMMA has two principal and inter-related technical components (i) Dairy VC Development and (ii) Institutional and Organisational Development.

11. **Component 1: Dairy Value Chain Development:** This component will result in the development of dairy VC innovations and capacities developed and improvement in milk production, milk safety, marketing and profitability of target households. Dairy aggregators will be assisted to expand the outreach of their milk collection and dairy product supply chains to the programme communities. Profitable linkages between the aggregators (including processors) and target households will be initiated based on the 4-Ps approach. Some of the progressive dairy producers who are linked to the aggregators will carry out on-farm demonstration of innovative dairy production

technologies and business models. The market vulnerable producers in the programme area will be exposed to these demonstrations, trained and prepared to adopt the improved production models and start profitable partnerships with the aggregators.

12. Seed capital financing will be extended to assist smallholders who are interested in adopting these improved models and partner in the dairy VCs. In order to improve the productivity of pastures and the profitability of the producers who depend on pasture grazing PUAs will receive grants to adopt pasture improvement measures. Simultaneously, in order to reduce grazing pressure on pastures non-extractive livelihood activities will be supported in pastoral communities. Rehabilitation of access roads to the summer pastures will be carried out to improve the market of niche dairy products produced in these areas.

13. **Component 2: Institutional and organisational development:** This component will address localised challenges which constrain production and marketing brought about by weak institutions and will promote dialogue between dairy sector stakeholders and their engagement in policy dialogue. DiMMA will form stakeholder platforms comprising representatives of all types of cluster stakeholders with the objectives to suggest and endorse potential beneficiary farmers, processors and service providers who meet the eligibility criteria of the programme, in particular young people and women; DiMMA will also develop FOs with emphasis on strengthening PUAs. The PUAs will be supported to design, develop and implement community-based Pasture Management Plans (PMP) that integrate EU approximation requirements as well as adaptation to climate change and disaster risk-reduction (DRR) measures to increase the resilience of this sector. DiMMA will support the MEPA to establish a National dairy policy dialogue forum which will be convened by MEPA and supported and serviced by the programme. The forum will gather representatives of Government, producers, Georgian Farmers' Association; national level service providers; processors, research institutions; NGOs and donors.

14. **Implementation structure:** DiMMA's implementation structure will comprise the PMU in Tbilisi, a Regional Office (RO) in Kutaisi and 3 Local Coordination Offices (LCO), one in each region.

15. **Programme costs:** The total programme costs of EUR 46.9 million will be financed by the first PBAS IFAD loan of EUR 16 million and, subject to availability of resources and agreement with the Government of Georgia (GoG), by a second PBAS IFAD loan of approximately EUR 5.46 million. A grant of EUR 3.7 million (USD 4.5 million) from the Adaptation Fund will be used to finance adaptive climate change activities, such as collective pasture management demonstrations or non-extractive livelihoods grants that will be used to enhance the adaptation of the most vulnerable people, especially youth and women. NGOs' co-financing is estimated at EUR 2.13 million, mainly contributing toward capacity building activities across the different components. Beneficiaries are also expected to provide an in cash contribution of EUR 9.96 million to the DVCF seed capital funds. Government in-kind contribution of EUR 9.63 million, over two funding cycles, is expected in the form of exemption of taxes and duties, provision of facilities (i.e. PMU office space and furniture, including utilities and other office related costs), as well as co-financing for the road infrastructure.

16. **Sustainability:** DiMMA's sustainability will be achieved in multiple ways: (i) Market sustainability. First, by strengthening the capacity of suppliers of services/inputs to smallholders, and processors and other buyers of raw milk/dairy products from smallholders, DiMMA will create a direct financial interest in sustainable smallholder dairy farmer upgrading. Second, by developing a cadre of advanced progressive smallholder farmers, that will serve as a stable anchor for dairy VC actors to profitably engage with all smallholders; (ii) Economic sustainability: Through the selective use of limited partial seed capital financing intended to trigger "first mover" investments and innovations in the dairy VC serving smallholders, and by building the capacity of financial institutions to develop appropriately structured and priced financial services. In addition to forging partnerships, for the dairy VC including smallholders, DiMMA will provide a direct financial interest in banks and MFI to provide the investment capital for dairy VC upgrading; (iii) Technical sustainability - through investment in a limited number of best-practices pasture access road and rehabilitation, DiMMA will set the standards for a comprehensive GoG program of pasture rehabilitation and upgrading; (iv) Institutional sustainability – The programme will be used as a vehicle to test and promote approaches to inclusive

and sustainable rural economic development that will provide a basis for influencing pro-poor policy, strategy and investments to promote smallholder dairy profitability. Through the experiences gained from the establishment of PUAs and the development of PMAs, the actors in the dairy value chain will leverage this to participate in the process of policy formulation. The DiMMA is a valuable opportunity to contribute with lessons and expertise to the MEPA specifically, and the GoG in general, to develop a comprehensive pasture policy with effective implementation institutions and mechanisms.

## Logical Framework

Results	Indicators					Means of Verification			Assumptions
Hierarchy	Name	Unit	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
<b>Outreach</b>	Number of persons receiving services promoted or supported by the programme (Core indicator outreach 1) <sup>2</sup>	Men	0	1,953	3,370	M&E system	Semi-annually	M&E officer	
		Women	0	1,953	3,370				
		Young	0	2,105	3,518				
		Non-young	0	1,801	3,222				
<b>Goal:</b> Rural economic development and poverty reduction by contributing to the modernization and emergence of a competitive, diversified, resilient and sustainable dairy industry	Increase (international standards'compliant) milk production in Georgia	%	604 million ton/ year	-	10% 664 million ton/ year	GEOstat Baseline and completion surveys	Baseline and completion	PMU	<ul style="list-style-type: none"> <li>▪ Political stability</li> <li>▪ Marco-economic conditions remain stable or improve</li> <li>▪ Major milk processors maintain local sourcing policy on milk produce</li> </ul>
	Number of households experiencing economic mobility (IFAD impact assessment indicator)	Number	0	-	3,514				
<b>Development Objective:</b> Enhance the livelihoods and resilience of smallholder dairy producers, especially in mountain areas, and improve the management of the natural resources	Percentage increase in average monthly income of supported dairy smallholders over baseline	%	TBD <sup>3</sup>	-	30%				
<b>Outcome 1</b> Milk production, safety, marketing and profitability of target households improved	Increase in volume of processed milk in milk collection centers/ processing enterprises	Litres/ day	TBD <sup>4</sup>	50%	100%	Enterprise records	Baseline and annually	PMU/ M&E officer	<ul style="list-style-type: none"> <li>▪ Livestock epidemic disease (R)</li> <li>▪ Various dairy value chain actors are willing to participate in the programme</li> <li>▪ Dairy value chain actors are willing to invest in development of the farm production capability</li> </ul>
	Percentage reduction in volumes of milk rejected by milk collection centers	%	0	10%	30%	Annual outcome survey	Annually	M&E officer	
	Number of new jobs created (core indicator 2.2.1)	Number	0	129	370	Enterprise records	Annually	PMU/M&E officer	
<b>Output 1.1 Value chain actors capacitated</b>	Number of persons trained in production practices and/or technologies (core indicator	Total	0	3,600	6,000	Training reports	Semi-annually	M&E officer Component officer	
		Men	0	900	1,500				
		Women	0	900	1,500				

<sup>2</sup> The total number of targeted households is 6740? on the assumption that there will only one beneficiary per household as per the economic and financial analysis

<sup>3</sup> Baseline figures to be updated based on the baseline survey.

<sup>4</sup> Baseline figures to be updated based on the baseline survey. The estimated capacity of the supported processing units/ milk collection centers is 121,300 litres/day. The current volume of processed milk will be estimated during the baseline survey

Results Hierarchy	Indicators					Means of Verification			Assumptions
	Name	Unit	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	1.1.4)	Youth	0	1,800	3,000				<ul style="list-style-type: none"> <li>Availability of qualified service providers for group facilitation, training and extension activities</li> </ul>
	Number of persons trained in income-generating activities or business management (core indicator 2.1.2)	Total	0	1,790	3,820	Training reports	Semi-annually	M&E officer Component officer	
		Men	0	448	955				
		Women	0	448	955				
		Youth	0	895	1,910				
<b>Output 1.2</b> Seed capital financing provided through DVCF	Number of persons benefitting from seed capital financing	Total	0	2,420	4,470	APMA reports	Semi-annually	M&E officer Component officer	
		Men	0	605	2,235				
		Women	0	605	2,235				
		Youth	0	1,210	2,360				
<b>Output 1.3</b> Pasture lands developed	Number of hectares of land brought under climate-resilient management (core indicator 3.1.4)	ha	0		9,500	Component reports	Semi-annually	M&E officer Component officer	
<b>Output 1.4</b> Marketing infrastructure developed	Number of kilometres of roads constructed, rehabilitated, or upgraded (core indicator 2.1.5)	KM	0	300	300	construction contracts/ progress reports	Semi-annually	M&E officer Component officer	
<b>Outcome 2:</b> Sustainable institutional and organisational development	Number of existing/new regulations, policies, or strategies supporting pasture management and growth of dairy subsector proposed to policy makers for approval, ratification, or amendment (Core indicator policy 3)	Number	0	1	2	MSP proposals	Annually	KM officer	<ul style="list-style-type: none"> <li>Interest and motivation among community members</li> <li>PUAs</li> </ul>
<b>Output 2.1.</b> local dairy initiative clusters and platforms and farmer groups developed/strengthened	Number of groups supported to sustainably manage natural resources and climate-related risks (core indicator 3.1.1)  Number of members in groups supported to sustainably manage natural resources and climate-related risks	PUA	0	76	76	PUA meetings	Annually	M&E officer Component officer	
		Total	0	3,800	3,800				
		Men	0	950	2,660				
		Women	0	950	1,140				
		Youth	0	1,900	1,900				
<b>Output 2.2.</b> Dialogue between dairy sector stakeholders strengthened.	Number of functioning multi-stakeholder platforms supported (Core indicator policy 2)	MSP	0	3	3	M&E system MSPs meetings	Semi-annually	M&E officer Component officer	

## Strategic context and rationale

### A. Country and rural development context

1. The Republic of Georgia, with an area of 69,700 square kilometres, is situated in the South Caucasus. Mountains cover much of the country, with 54% area located over an altitude of 1,000 m. The average annual temperature is 11°C to 13°C in the plains, and 2°C to 7°C in the mountains. Annual precipitation is 400 to 600 mm in the plains, and 800 to 1,200 mm in the mountains. Georgia has a population of about 3.7 million, of which 1.7 million live in rural areas (46.2%). Georgia has experienced a slow but steady loss of population due primarily to economic outmigration. However, agriculture is increasingly seen as a viable livelihood opportunity and the external migrants can bring back valuable skills, contacts, and capital for agricultural investments.

2. **Poverty:** Georgia is classified as lower middle-income country by the World Bank with GNI per capita of US\$ 3,810 (2017). Poverty level was estimated at 32 percent in 2016 (2011 PPP). There are around 550,000 rural households with an average of 3.3 people per household (*GeoStat, 2014*). Land privatization that followed the fall of the Soviet Union has resulted in smallholdings (75% households with less than 1 ha of land) and neglect of the agricultural sector till recently, has contributed to subsistence farming. Social transfers are major drivers of poverty reduction. Agriculture accounts for 45 percent of rural household income, a further 28 percent coming from social payments and pensions and only 27 percent from salaried work.

3. **Food Security and nutrition.** While undernutrition is not a major issue, the primary food security and nutrition issue is affordability. Poor households spend more than 56 percent of income on purchasing food. Hunger does not present a significant problem in Georgia, with prevalence of stunting of 11.3%, wasting at 1.6% and underweight at 1.2% for children less than five years. Overall, food consumption is sufficient in calories with average dietary supply adequacy at 116% (2014-2016), and an average protein intake of 75 g/day. However, food consumption is characterized by low to medium nutritional diversity - which means that on average Georgian population can afford 5 food groups out of the recommended 10 - causing worrisome levels of the obesity among non-pregnant women (42%) and children (20%). Due to consumers' poor purchasing power, diets are typically characterized by high consumption of bread and bread products, thus 62% of the food energy value comes from carbohydrate-based food. In order to tackle these issues on an institutional level, MEPA has taken important steps in raising the profile of food security and has elaborated 20 basic recommendations on food security and nutrition, along with a draft law on food security further reinforcing Government's commitment. In line with these efforts, DiMMA aims to support dietary diversity in the country by strengthening of the dairy value chain that would enhance nutrition of smallholders with improved accessibility and affordability of locally produced milk and dairy products, and would increase the demand for those food items. IFAD interventions would also support enhanced quality and safety, particularly of dairy products, through capacity building of processors and producers and financial support to upgrade facilities to meet international food safety standards.

4. **Youth.** About 40% of population in Georgia are children and young people up to 29 years old. Almost 30 percent of 15-29 year old young people were unemployed in 2014, with significantly more women being out of labour market than men. Youth unemployment can be explained by low motivation to practice farming, and a desire to have salaried jobs which are mainly offered in larger cities. That said, a significant group of young people continues to work in agriculture and face problems with shortage of knowledge and skills, lack of resources, and limited access to finance.

5. **Gender:** About one-third of the households in Georgia are led by women, which are more prone to poverty than men headed households. In general, female remuneration is about 20 percent lower than male (*Geostat, 2016*) in the agriculture sector. Georgian legislation does not discriminate against women, and recognizes equal rights of men and women. A Gender Equality Law adopted in 2010, a Non-discrimination Law adopted in 2014, and the Gender Equality Strategy for 2014-2016 all

aim to ensure women's security, equality in the labour market and the strengthening of women's political participation. Livestock is an important sector for women, with high engagement especially in milking, but also processing milk into cheese and other products, and local marketing. Animal care is also important, especially when men are in seasonal or long-term migration. Women especially value dairy cows as they can help ensure family's nutrition and food security.

6. **Agricultural Sector:** Since 2010, the agricultural sector began to reverse its long term decline and by 2016, the output of the sector grew by 19% over 2010 levels. The state budget for agriculture increased to 3.8% in 2018, up from 1.3% in 2010. This suggest a growing commitment by the GoG to the economic and social importance of the agricultural sector.

7. **Livestock Sector:** There are approximately 1 million head of cattle in Georgia, about 50% of which are producing dairy cows. Between 2004 and 2014 there was decrease of 15% in total cattle numbers and 25% of dairy cow population. However, the decline in dairy cattle ownership has been more than countered by a 40% increase in milk productivity per cow, and overall milk production has increased 11% from 2006 to 2015, mainly in the plains and still well below their potential.

8. **Demand and supply of dairy products:** The total demand for dairy products in Georgia is estimated at 680 million Eql (liquid milk equivalent). In comparison local milk produced in the country is estimated at 530 million Eql and is valued at around US\$ 140 million. The deficit of around 150 million Eql (30%) is currently met by imports of dairy products valued at around US\$ 50 million in 2016. Around 85% (around 450 million Eql) of the local milk production is transformed at home into cheese and other dairy products, by the farmers themselves. The remainder 15% (around 75 million Eql) is supplied to formal processing units for processing into cheese and other dairy products. However, the total annual requirement of these processors is equivalent to 225 million Eql and the 150 million Eql of imports is mainly used to meet this deficit.

9. **Importance and costs of imports:** As discussed above, out of a total milk consumption of around 680 million Eql per year, 150 million Eql (22%) are imported, which represents a significant annual cost of around US\$ 50 million to the country. Future projections indicate there will be an expansion of imports especially from the EU. The biggest share of these imports is represented by skimmed milk powder that is used in the industrial and medium scale dairy industry. It is currently difficult for the local production to be competitive against these imports for several reasons: (i) the local production depends so much on the season and the availability of pasture that there is almost no milk available for collection in winter, and industrial processing has to rely only on powder during this period; and (ii) the farm gate price of milk in the Country (0.4 USD in average, up to 0.5 in winter), is far above the world market price (0.25 USD as of March 2018).

10. **Home based cheese production:** Around 85 % of the local milk production is transformed by the producers into homemade cheese of different types such as Imeruli (cheese base), Sulguni (a soft cooked cheese) Naduri (a kind of ricotta). About 25% of this cheese is consumed at home and the remaining 75% (330 million Eql) is sold by producers to cheese traders at the farm level, who further sells it in rural markets. These traders and vendors are usually women, often producers themselves. Georgia has a very old and strong food culture, where cheese play a pivotal role. There are some unique cheese specialities in Georgia, including some ancient recipes that had almost disappeared during the soviet times and that are being re-discovered. The demand for authentic, natural and organic cheese is growing in Georgia, both from tourists and the urban educated population. The important diaspora are often interested in this kind of differentiated high end products. Despite this trend, there is currently no mechanism for differentiation and traceability of these dairy products.

11. **Medium scale processing with local milk collection:** Their capacity is usually less than 10 tons per day. They produce cheese such as sulguni, imeruli, matzoni (traditional yogurt) and sell to shops and supermarkets within the region and sometimes to supermarkets in Tbilisi. Most of them have modern facilities that are or can easily become compliant with the new food safety regulations. They usually collect local milk from producers in 30-50 km radius extending upto 100 km in summer. Sometimes they set collection points in summer pasture camps. Some of them use powder milk and



vegetable fat to produce cheese. They use different types of milk collection systems which can be broadly classified as: (i) door to door collection system using milk collection van; (ii) milk collection centres equipped with coolers, generators and (iii) smaller milk collection points as locations where people gather to get their milk collected by aggregators.

12. **Industrial processors:** Their capacity is more than 10 tons per day and they represent 12% of the total quantities of milk requirements. They mostly use milk powder and other imported ingredients for producing liquid milk, fermented milk, liquid UHT milk, yogurt, imeruli, sulguni and other western style products. Some of the processors (notably Sante) have developed premium products, processed from local milk, responding increasing consumer demand for local authentic products; both Sante and Soflis Nobati, the largest market players, are committed to increasing their local sourcing of raw milk.

13. **Sector transformation:** The dairy VC in Georgia is transforming rapidly, because of changes in consumer habits and expectations and progressive enforcement of new food safety regulations. Georgia and the EU signed an Association Agreement in 2014 (entered into force 2016), which introduces the Deep and Comprehensive Free Trade Area (DCFTA). By 2029, all Georgian SPS (sanitary and phytosanitary) regulations must be aligned to those of the EU. So far, 55 SPS regulations have been enforced, including the basic package of food hygiene measures which will enter into force in 2020. By this date, all milk processing facilities will have to comply with the new regulations. It implies an immense challenge for smallholder farmers who can lose their markets as they will not be allowed any more to sell their dairy products (particularly home-made cheese) to intermediaries, shop or supermarkets. If they wish to do so, they will need to comply with the full set of requirements including implementation and documentation of Hazard Analysis Critical Control Point (HACCP).

14. **Institutional structure of the dairy sector:** At National level, Dairy Georgia has recently been revived but currently represents mainly industrial processors. The National Milk Producers Association representing dairy farmers is not very active. The MEPA actively promotes cooperatives through the Agricultural Cooperative Development Association (ACDA), which has special programs targeted at dairy processing and pasture management. ACDA provides capital investment and technical assistance to agricultural cooperatives for equipping them with modern milk collection and processing infrastructure; for purchasing laboratory equipment to control raw milk and necessary equipment for artificial insemination (AI) to improve breeds. At local level, there are no established community development participatory mechanisms that could incorporate the dairy VCs. Much of dairy policy formulation and legislative reforms are driven by DCFTA and EU approximation. The government is receptive to the establishment or strengthening of dairy platforms as a means of communicating with all actors in the dairy VC, from smallholders to industrial processors.

15. **Production systems:** The programme area has 4 types of dairy production systems (i) Lowland extensive traditional system: These producers own 1 - 4 animals of local breed which are fed on communal pastures from spring to autumn and on crop residues and hay in winter. Productivity is low at less than 5 litres per day. Livestock is not the main activity but is kept for cheese production for home consumption; (ii) Mountain extensive traditional system: These producers graze 5-10 animals on good quality mountain pastures during summer which substantially increases their milk production. Dairy activity is the mainstay of the household economy and the system is more market oriented (iii) Lowland semi-intensified system: These producers have upgraded production systems with 5 to 20 crossbreed animals which are fed on pastures and also on good quality fodder and concentrates. This system is market-oriented and milk sold to processors and also processed into cheese at home mostly for home consumption; (iv) Type 4: Large scale commercial farmers: These producers have having more than 20 cows, often of improved breeds (Holstein and Brown Swiss mostly), kept in modern installations. They produce quality fodder (silage, hay), concentrates, and avail of veterinary services, and artificial insemination (AI). Summer pastures are used for hay production or for non-lactating animals.

16. **Productivity:** The average number of cattle per household is 1.54, compared to 60 in the EU. Around 94% of households have less than 10 cattle. Traditionally, livestock keeping is seen as a

coping strategy for a semi-subsistence lifestyle supplemented by other agricultural and non-agricultural activities. Average milk yield per cow at 1,400 kg per year (6,900 kg per cow per year in the EU 28). This low productivity can be explained by several factors: (i) the daily productivity per cow is low (around 7 litres per day in average), due to the low genetic potential of animals and inadequate feeding, (ii) low fertility caused by poor health status, inadequate feeding and bad management of reproduction, and (iii) short duration of lactation, usually between 200 and 250 days (should be 305 days), mainly because of feeding constraints.

17. **Pastures:** Pastures can be divided into summer pastures and communal (lowland) pastures, as follows:

- i. Summer pastures: These are used 4 to 5 months a year in high mountainous areas. They are of high nutritional value. Farmers send herds to summer pastures collectively. Summer pastures, under the ownership of the Ministry of Economy, are entirely self-regulated, with informal grazing rights held by villages. Conflicts between users of summer pastures is minimal. These are served by roads/ tracks in disrepair and many are only accessible by foot or horse back. Communal shepherd's huts in the pastures are in bad condition. Water supply infrastructures require renovation. Cattle pens are absent or basic. It is not possible to collect raw milk regularly from most summer pastures. Thus, milking is done in inadequate hygienic conditions, the milk is processed into cheese using inadequate hygienic facilities and stored without refrigeration equipment, which can lead to microbial contamination. Cheese is carried on horseback to the nearest village or road, usually every 10 days.
- ii. Lowland communal pastures located around villages: The lowland communal pastures belong *de jure* to the Ministry of Economy and some municipalities have tried to regulate the use of these pastures, but access is generally free for all members of the community. The lowland pastures are therefore usually overgrazed, resulting in heavy degradation of quality and significant loss of productivity. Lowland communal pastures remain very important for the poorer and subsistence-oriented smallholder farmers, but the cows belonging to more progressive farmers use a combination of privately owned pastures, forage crops grown on arable land, and purchased feed.

18. **Service Providers:** Service providers comprise: (i) **Mechanised services:** All regions have some private mechanisation service providers, who own various types of tractors, mowers and balers for fodder production. However, the costs to the farmers are quite high if they are not located close to the service provider. A key issue for both private and public service providers is that most smallholders are not convinced of the value of improved animal nutrition for their own farms, and thus are not willing to seek out and pay for these services; and (ii) **Veterinary services:** The public veterinary services are understaffed (36 persons at national level, 120 in the field) and therefore face difficulties to fulfil their responsibilities related to veterinary public health (control of TADs and zoonotic diseases, including brucellosis) and food safety (inspection of food of animal origin). For vaccination campaigns and disease surveillance, they sub-contract private veterinarians and paravets (650 in total), which is a classic and efficient arrangement.

19. **Genetic resources:** The local cattle populations are the result of mixes of indigenous and imported genetic material. They are very small and light (250 kg in average) and average production is around 1,400 kg per lactation but through adequate feed and management milk production can reach 2,500 kg per lactation. Milk quality is very suitable for cheese processing.

20. **Genetic improvement:** Crossed animals with highly productive breeds so far has shown limited impact in the programme area, where local breeds dominate. AI services have been introduced by various development projects, and specialized service providers were trained and equipped, but the adoption of this technology by dairy farmers, including progressive farmers, is low.

21. **Animal health:** Georgian cattle is affected by several diseases; the most important are Brucellosis, which causes poor reproductive performance, infertility, stillbirth; Mastitis which reduces

productivity, longevity of cows and calf health; Other transboundary diseases such as Foot and Mouth Disease, and Anthrax, are present but they do not have significant impact on the dairy VC.

22. **Financial sector and rural finance:** The Georgian financial sector is dominated by 21 local banks that are well capitalized, liquid and resilient. The non-banking sector comprises of 69 MFIs, 17 credit unions and 5 leasing companies with assets not exceeding 4% of the GDP. The insurance sector is small. Farmer's financial needs are being served by several banks and non-bank financial institutions that administer a variety of government-funded schemes.

23. The Agricultural Project Management Agency (APMA) which is an arm of the Ministry of Environmental Protection and Agriculture (MEPA) to support investments in agricultural projects supports a cheap credit programme for agricultural loans in partnership with the 13 commercial banks. In this scheme, agricultural sector projects approved by these banks at the nominal interest rate of 13-15% are eligible for 11% government subsidy through APMA, thus reducing the net interest rate for the borrower to 2-3%.

24. Despite the relatively adequate supply of rural credit, farmers (and especially the poorest segments) are often unable or unwilling to access available funds for a number of reasons, including a) cumbersome application procedures; b) prohibitive collateral requirements (banks); c) inappropriately designed credit instruments that aren't matched with the cash flow of agricultural businesses; d) weak technical and business capacity of the farmers; e) high interest rates (MFIs) and f) a general distrust of the financial sector. Agricultural cooperatives face special problems with access to finance, as banks are reluctant to accept assets held by cooperatives (as opposed to individually held assets) as collateral.

25. In 2017, IFAD supported a 4 years innovation grant for rural risk management implemented by the Microinsurance Centre at Milliman (MIC), Geneva. Georgia was selected as one of the implementing countries and MIC has identified livestock microinsurance (MI) products as its intervention area in rural Georgia. MIC is currently in the process of partner identification in Georgia who will develop product prototypes and pilot test these products during the 2019-20 period.

## B. Rationale

26. **Potential market exclusion of semi-subsistence dairy producers:** The Georgian national regulations on food safety, animal health and welfare will be aligned to those of the EU as part of the Deep Comprehensive Free Trade Agreement (DCFTA). Consequently, milk collection and processing facilities compliant with EU aligned national standards are emerging in the programme area which requires changes in the production systems to ensure continuous and safe supply of raw milk. This will likely affect the livelihoods of a large number of smallholder dairy cattle producers, especially semi-subsistence farmers who are located in mountain areas and other dairy VC stakeholders. Currently, the livelihoods of these dairy producers are highly dependent on income from selling traditional homemade Georgian cheese and other dairy products produced using rudimentary facilities that do not meet basic hygiene and food safety requirements. They will meet challenges to comply with the requirements of the new regulations and might be excluded from future markets. DiMMA aims to equip these producers with knowhow and technologies to: (i) modernise and upgrade their milk production and processing systems; (ii) assist them to adopt food safety standards; and (iii) facilitate their access to services and financial resources. The programme will invest in developing market opportunities that makes it profitable for producers to adopt these changes.

27. **Vulnerability of pastures and the related dairy production systems to the effects of climate change:** Even with farm modernisation, the current dependence of the smallholders on mountainous summer pastures and communal (lowland) pastures for animal nutrition is likely to continue to be driven by the cost and niche quality advantages associated with pasture-based production systems. However, current pasture usage and management practices have negative impact on animal productivity. It also exposes the pastures to overgrazing, land degradation and increases their vulnerability to effects of climate change. DiMMA will facilitate better access and

management and productivity of pastures, enhance climate change mitigation/adaptation and environment sustainability.

**28. Limited institution development capacities of newly formed dairy processing cooperatives:** In view of the future DCFTA approximation the government is facilitating the rapid transformation of the dairy VC in Georgia by assisting the development of dairy production and processing cooperatives in the programme area. To support the government in the process of transforming the dairy sector the Agriculture Cooperatives Development Agency (ACDA) has emerged as a specialized agency to promote cooperative movement. However, the momentum of these initiatives is often slowed down by the gap in organisational and management capacities of the cooperatives and their limited access to quality capacity building and technical assistance services. DiMMA will support the government to modernise the dairy sector by strengthening these cooperatives and promoting their involvement in business and market development services, mechanisation services, technical support, financial assistance, improved breeds and animal health.

**29. Low productivity of dairy animals:** A major drawback facing the competitiveness of the dairy sector is the low productivity of dairy animals caused by factors such as inadequate feeding of dairy animals, low fertility of dairy cows, low genetic potential of animals, bad management of reproduction and short lactation period. These factors are often not addressed at the farm level because of knowledge gaps, lack of surplus income for upgrading investment and inadequate capacity of semi-subsistence farmers. It is estimated that the adoption of better feeding and lactation period management practices can nearly double the current productivity of dairy animals. The programme will support demonstrations, capacity building measures and access to finance for adoption of improved dairy production technologies by semi-subsistence dairy producers. It will also improve their access to inputs and services such as fodder, veterinarian care and AI for better nutrition, animal health and breed improvement for increased productivity.

**30. High level of dairy imports to meet domestic demand for dairy products:** Industrial and medium scale processors lack access to sufficient quantities of locally produced, high grade, raw milk to meet their processing requirements. Thus, they import around 150 million Eql of dairy products annually, valued at US\$ 50 million. DiMMA will ensure higher supply of locally produced raw milk to these processors by supporting: (i) dairy producers, to increase the volume of high grade milk production, around the year, through improvements in their production systems; and (ii) dairy processors, to develop marketing linkages with the producers to absorb the increased milk production using expanded milk collection chains. Increased, around the year, local supply of high-grade milk will reduce their dependence on imported ingredients and will contribute to import substitution.

**31. Limited participation of dairy VC stakeholders in policy formulation:** Although the Rural Development Strategy of Georgia has recommended the formation of Local Action Groups to identify and initiate local collective initiatives, at present there are no mechanisms of consultation between dairy VC actors at either the regional or national level. Thus, much of dairy policy formulation and legislative reform related to the livestock sector are conducted without active participation of the dairy VC actors. DiMMA will develop and strengthen dairy stakeholder platforms and farmers organisations (FO) which will enable stakeholder consultations and stimulate policy dialogue to strengthen the enabling environment of the dairy VCs developed in the programme areas.

### **Theory of change**

**32.** The development hypothesis on which DiMMA is based is that dairy aggregators (SMEs and FOs) including buyers of niche dairy products can be motivated and driven by their commercial interests to lead the process of including smallholder dairy producers, youth and women, in their raw milk and niche dairy product supply chains resulting in job creation, income generation and poverty reduction of these households.

**33.** This requires support to these aggregators to expand the outreach of their milk collection and dairy product supply chains to the programme communities, which will create additional demand for dairy produce sourced from smallholder dairy producers and in turn, assist to transform them to

commercial dairy producers. It also requires development of the producers' appetite to improve their production systems through exposure to improved technology and business models. Additionally, producers' skill development and access to information, services and finance are needed. These will enable the smallholder producers to successfully adopt the technology and business models to improve the quality, quantity and safety of the dairy products. By producing and selling the quality and quantity of dairy products required by aggregators in response to market demands smallholders producers can transform into commercial producers. Simultaneously, improved pasture management practices are required to ensure sustainability and efficiency of this source of nutrition for dairy herds.

Problem	Causes	Effects	Intervention	Impact	Objective
- Economic poverty of smallholder dairy producers in rural areas - Youth unemployment in the rural areas	- Traditional, inadequate hygienic dairy production practices - Lack of technical and enterprise skills - Lack of access to financial resources - Absence of pasture management practices - Weak FOs - Limited policy dialogue engagement	- Low, production and productivity of dairy herds - Possible market exclusion due to lack of compliance to food safety regulations - Negligible linkages to dairy aggregators - Limited participation in FOs - Overgrazed pastures exposed to climate change risks - Top driven policy environment	- Exposure to demonstrations, technical and enterprise capacity building - Linking the smallholders to aggregators - Seed capital support for technology adoption and production systems improvement - Facilitate access to suitable financial products - Strengthening FOs with focus on including poor - Support market linkage infrastructure - Improved pasture management practices	- Increases in the volume, safety and value of dairy produce - Reduction in poverty – improved living standards - Job growth; increase in self-employment - Reduction in migration from rural areas	- Enhance the livelihoods and resilience of smallholder dairy producers, youth and women by linking them to profitable dairy aggregators, youth and employment options on a sustainable basis and improve the management of the natural resources on which they depend.

34. Smallholders' access to finance is critical for developing their linkages to aggregators and to ensure the sustainability of their dairy farms. However, the high cost of borrowing from MFIs (more than 20% interest rate) and the lack of rural outreach of commercial banks (agricultural loans 2% only) are major obstacles to their access to finance. Additionally, the relatively large financing requirement of around EUR 4,000 to initiate the farm improvement process is above the risk appetite of most MFIs (average loan size around US\$ 1,000). Commercial banks too do not favour start-up projects due to high risk factors. Similarly, youth entrepreneurs engaged as FLSPs and small-scale dairy aggregators, face barriers at entry due to limited experience and absence of sufficient collateral and credit history.. DiMMA will address the challenge of access to finance of these stakeholders by supplying seed capital financing to start-up the essential business activities and by promoting linkages between the value chain actors.

35. Seed capital financing will enable the development of profitable linkages between the smallholder dairy producers, aggregators and the FLSPs resulting in integration of smallholder dairy producers in aggregators' businesses, as partners. The future farm expansion needs of smallholders and their graduation from seed capital financing to commercial financing will occur through increased self-cash contribution, value chain financing and commercial financing from banks and MFIs. Increase in self cash contribution will result from higher cash returns to the smallholder producers from assured sales of high grade milk and niche dairy products to aggregators. It will be supported by training on record keeping and savings habits to assist reinvestment of returns for farm expansion. The stable partnership between the buyers and the smallholders will promote value-chain financing – through the aggregators pre-financing (advancing) the farm expansion and improvement costs of linked smallholder dairy producers. To encourage pre-financing, the programme will facilitate bulk loans from commercial banks to aggregators using the cheap credit window (2% interest rate). Functional market linkages with aggregators, documented evidence of the cash flows from these linkages, and greater presence of bankable assets generated from increased revenue will make smallholders viable/bankable clients. Additionally, DiMMAs support to marketing of livestock micro-insurance products in the programme area will attract commercial financing of livestock assets.

## Programme description

### A. Programme area and target group

36. The programme will start to be implemented in the three contiguous regions of Imereti, Samegrelo-Zemo Svaneti and Samtskhe-Javakheti. The regions were selected based on geographical targeting approach considering the following factors; Together, they have: (i) nearly 50% of the national cattle population (478,000 heads of cattle across 116,610 holdings); (ii) majority smallholder dairy producers with 99% of households owning less than 20 cattle; (iii) more than half of the country's total rural population; and (iv) relatively large mountainous areas which have higher levels of poverty. These factors present suitable conditions within the programme area for supporting a relatively large group of smallholder farmers to produce large volumes of milk that can sustain the dairy processing enterprises in the area throughout the year and deliver economies of scale to all VC actors. During implementation and by the Mid Term Review it will be decided on whether to expand the Project Area to other regions.

37. **Target group:** DiMMA's benefits will reach 3 categories of VC actors comprising; (i) 4,220 smallholder dairy producers linked to programme supported dairy VCs and Pasture Users' Associations (PUA) - consisting of 3,900 (92%) market vulnerable producers and 320 (8%) progressive producers (explained later); (ii) 46 farm level service providers (FLSPs), assisted to supply the dairy producers with inputs and services required to improve production; (iii) 75 dairy aggregators, supported to form market linkages with the dairy producers. An additional, 620 non-commercial rural households will benefit from 250 pilot non-extractive livelihood projects and through employment in 370 jobs created by 121 small enterprises supported by the programme. Within each of these categories, DiMMA will have special focus on the inclusion of women and youth and 3,518 (52%) of individual beneficiaries will be youth and 3,370 (50%) will be women. Only one member per household will be eligible for programme support related to seed capital financing.

**Table 1** Table 1: Beneficiary outreach table

Beneficiary category	Small enterprises supported	Beneficiary households					Women beneficiaries (number)	Youth beneficiaries (number)
		New jobs	VC linkage	Non-extractive livelihoods	PUA	Total		
- Farm level service enterprises	46	46				46	23	46
- Aggregator enterprises	75	324				324	162	162
- Market vulnerable dairy producers			3,900			3,900	1,950	1,950
- Progressive dairy producers			320			320	160	160
- Non extractive livelihood pilots				250		250	125	250
- PUA support					1,900	1,900	950	950
<b>Total</b>	<b>121</b>	<b>370</b>	<b>4,220</b>	<b>250</b>	<b>1,900</b>	<b>6,740</b>	<b>1,835</b>	<b>3,518</b>

38. **Smallholder dairy producers:** Smallholder dairy producer households, with less than 20 cattle will be the main target group. For the purpose of targeting they are divided into two groups: (i) market vulnerable dairy producers; and (ii) progressive dairy producers. Henceforth, these two groups are together referred to as **target households**.

39. Market vulnerable dairy producers: They are market oriented subsistence and semi-subsistence households who are characterised by: (i) significant dependence on income from selling home-made dairy products in the local market either through middlemen, or directly at the open market; (ii) ownership of less than 20 cattle with an average of four cows, managed using family labour; (iii) sizeable presence in the mountainous areas and in the foothills; (iv) mainly following pasture grazing for their herds with limited dependence on fodder and feed purchased from the market; and (v) close to subsistence level economic conditions with average annual income around GEL 5,474 (EFA) from dairy farming activities which is very close to the threshold income of GEL 3,720 of subsistence farmers (4 members, annual, Geostat).

40. They are at high risk of increased poverty as a consequence of losing their markets and livelihoods after the enforcement of the food safety regulations since the quality of their dairy produce do not comply with the safety standards that will be required for accessing the markets. Their dairy

production practices are traditional in nature, less productive and involves inadequate hygienic practices. Also, their awareness of the new regulations is varied and they are not yet motivated or prepared to change their production practices to comply with the new food safety standards. From the perspective of dairy VCs, they are not yet in a position to immediately partner with aggregators and supply them with the required volumes of high-grade milk and other dairy products. DiMMA will expose them to demonstrations of improved dairy production and business models in order to develop their appetite for change. They will also be prepared to adopt these models successfully through training and capacity building support. Promising households will be linked to aggregators and provided seed capital assistance to improve their production systems and meet food safety standards through measures such as milking machine introduction and cow-shed renovation. They will also be included as members of PUAs which receive grant assistance from DiMMA to implement measures for improving the productivity of pastures along with their resilience to climate change.

41. **Progressive dairy producers:** They are market oriented semi-subsistence households, characterised by: (i) preparing to sell or already selling milk to aggregators and supplying other dairy products directly to local stores. They are often involved in other commercial agricultural activities, such as horticulture, growing apples, and walnuts; (ii) ownership of less than 20 cattle with an average of eight cows, managed mainly by using hired labour; (iii) improvements and investments already carried out in their farms to contribute to intensification and willingness to transform into commercial producers; (iv) usage of pastures and supplementary feeding of herd with hay, fodder and other feeds.

42. This group is aware that access to markets can be highly constrained in the future and have developed the mind-set to adapt their production systems and comply with the regulations in order to remain active in the market. Additionally, they have started scouting for technological solutions and have already invested in testing some of these measures e.g. hygienic milking practices, at the farm level. They are actively seeking supportive schemes and advisory services and can adopt technological changes rapidly to increase production and supply relatively large quantities of milk required to sustain aggregators during early stages of VC development. DiMMA will link them to aggregators and support them to host demonstrations of innovative technology and business models. Eligible households will receive seed capital assistance to increase milk production through purchase of cows, renovation of production facilities and purchase of farm machinery.

43. **Non-commercial households:** This target group will comprise: (i) market vulnerable dairy producers who are unable to adopt timely measures to improve their dairy production systems and comply with the food safety regulations, and thus lose market access with the enforcement of the food safety norms; (ii) other subsistence households with little or no engagement in commercial dairy or crop production activities and without any family members with formal employment. They are mainly dependent on income from government social programmes, manual labour activities and sometimes remittance income from relatives. DiMMA will provide seed capital assistance to youth beneficiaries from such households to start-up non extractive livelihood activities such as collection of mushrooms and medicinal plants, beekeeping and touristic activities in the pasture areas. Additionally, DiMMA will promote the employment of young and women members from these households in jobs created by DiMMA supported aggregators and FSLPs in the programme areas.

44. **Farm level service providers (FLSP):** FLSPs are youth entrepreneurs (men up to 35 years and women upto 40 years) assisted by DiMMA to start-up small enterprises in the programme area dealing with the supply of farm level inputs and services to the programme communities. Timely access to these services by the target households will assist them to achieve the targeted milk production volumes and hygiene standards. The enterprises will provide at least one full time employment to a young person selected from a programme community. FLSPs will comprise animal health specialists (veterinarians and paravets), fodder and feed suppliers, AI specialists, input suppliers and mechanization services providers. DiMMA will assist the FLSPs to develop their market in the programme areas and also to improve their technical and business management capacities through training, exposure and other capacity building measures. Qualifying FLSPs will also receive

seed capital assistance from DiMMA to renovate their offices, acquire machinery/equipment (bailers, mowers, motorcycles, etc) and start-up their services in the programme areas.

45. **Dairy aggregators:** Dairy aggregators are milk and other dairy product collection and processing enterprises who will be assisted by DiMMA to develop partnership with the target households, to buy milk and other dairy products produced by the latter. They can be large enterprises, SMEs, cooperatives, individual dairy producers and other independent entrepreneurs. Most of them have modern facilities that are or could become compliant with the new food safety regulations. Medium size aggregators will provide full-time employment to at least 8 persons selected from the programme communities. Similarly, small size aggregators will provide full time employment to at least 2 persons. Qualifying aggregators will receive seed capital assistance from DiMMA to modernise their equipment and procedures and increase their milk collection outreach to the target households. They will be responsible for managing the dairy processing and milk collection facilities.

46. **Targeting strategy:** DiMMA will promote the inclusion of **target households, women and youth** in cluster level dairy VCs through the implementation of Business Plans (BP) that connect target households to aggregators. In order to ensure the inclusion of the target households in the business models, DiMMA will adopt: (i) **geographical targeting** measures to reach those areas with higher concentration of target households; (ii) **self-targeting** by aggregators offering business opportunities in the dairy VCs suitable enough and of interest to the target households; and (iii) **direct targeting** of youth and women. The targeting matrix is presented below:

**Table 2: Targeting matrix**

	<b>Market vulnerable households</b>	<b>Women</b>	<b>Youth</b>
<b>Geographical targeting</b>	- Programme area with 50% of national cattle herd; above 50% of the national rural population; 99% smallholders as cattle owners; mountainous areas - 50% of target households linked to aggregators & 50% of PUA members must be from vulnerable communities as condition for aggregators and PUAs to receive seed capital and grants.		
<b>Self-targeting</b>	- Small size of seed capital financing is attractive only to target households; Labour intensive business models are pertinent to target households; gradual transformation through AI is less attractive to better-off farmers; nearby MCCs, friendly payment system adopted by aggregators suitable for inclusion of target households	- Aggregator level jobs favour employment of women. - FLSP jobs on animal health favour employment of women - Support to niche cheese production will favour self-employment of women. - Adoption of milking machine, etc will reduce drudgery for women.	
<b>Direct targeting</b>	- Aggregators have to develop partnerships with the projected number of target households as committed during BP formulation.	- 30% quota for women for (i) dairy farm-improvement and non-extractive livelihood activities (ii) jobs created by enterprises (iii) (members of) PUAs receiving pasture improvement grants	- 100% youth quota for FLSP entrepreneurs and jobs created by them; non-extractive livelihoods; 50% youth quota for dairy farm improvement; jobs created by aggregators; (members of) PUAs receiving pasture improvement grants

47. **Geographic targeting:** The first level of geographical targeting has already been embedded in the selection of the programme area in a manner that it contains 50% of the national cattle population. Almost 99% cattle owners are smallholders with less than 20 heads of cattle. More than half of the total rural population in the country (more pronounced poverty levels) is located in the programme area. These regions have relatively large mountainous areas where the households are more prone to economic and environmental shocks. These conditions will enable DiMMA to support a relatively large group of target households to produce large volumes of milk that can sustain the dairy processing enterprises in the area throughout the year and deliver economies of scale to all VC actors.

48. The second level of geographical targeting measures will assure that the aggregator level BPs are adequately incentivised to include the target households from the economically underdeveloped and more vulnerable communities located especially in the mountainous and foothill areas and identified as priority communities during the preliminary mapping exercise. Aggregators that achieve more than 50% of their linkage outreach to target households from the priority communities will be eligible for programme support. Similarly, PUAs with at least 50% membership of target households from the priority communities will be eligible for grants for pasture improvement activities.



Furthermore, marketing infrastructure development, through the rehabilitation of roads connecting the summer pastures used by these priority communities will be implemented in preference.

49. **Self-targeting:** In order to ensure self-targeting, DiMMA will focus on creating opportunities which are suitable enough and of more interest to the target households. For example, aggregators will be connected to progressive farmers first in order to meet the bulk of their raw milk requirement. This will allow the aggregators to spend more time and resources for collecting relatively smaller volumes of dairy products supplied by the market vulnerable farmers. Nearby location of MCCs and collection points, door to door collection where possible and friendly payment practices such as spot payment and cash payment will attract market vulnerable farmers to join the dairy VCs.

50. Seed capital assistance to market vulnerable farmers will be of EUR 2,400 (DiMMA contribution) and purchase of new dairy animals will not be eligible for financing. This sum is insufficient to meet the farm improvement requirements of better-off farmers who want to buy more animals and invest in farm automation. The relatively small sum offered by DiMMA will make it attractive only to the market vulnerable households. Similarly, the viability of the business models supported through seed capital financing will be based on substantial involvement of family labour which is mainly pertinent for the market vulnerable households. Breed improvement strategy aims at gradual improvement through AI, instead of rapid transformation by importing high quality animals. The gradual process of transformation will make the programme assistance less attractive to better-off farmers who are more interested in faster transformation. In addition self-targeting measures for inclusion of women will be promoted as discussed in later sections.

51. **Direct targeting:** In order to be eligible for seed capital financing and to continue receiving DiMMA support, the aggregators will develop partnerships with the projected number of target households from the programme area, as committed during BP finalisation. Failure to do so will result in loss of access to the assets financed by the programme and non-eligibility from future programme support. Direct targeting will also secure the targeted outreach to youth and women;

52. **Targeting of women:** The programme will develop a gender strategy regarding interventions that can increase women's incomes, enhance their decision-making and empowerment. Direct targeting and self-targeting measures will be adopted for inclusion of women.

- (a) Direct targeting measures for women's inclusion will involve at least 30% quota reserved for financing women headed households and women managed business out of the total number of: (i) seed capital investments directed to the adoption of improved dairy production systems by target households and adoption of alternative livelihood activities by youth; (ii) jobs created by the small enterprises (aggregators and FLSPs) supported by DiMMA in the programme area; and (iii) PUA members in PUAs selected for grant financing for improving pastures.
- (b) Self-targeting measures will be driven by the practice of high women's engagement in milking, processing milk into cheese and other products, local marketing of dairy products and animal care especially when men are in seasonal or long-term migration. DiMMA will provide such women members with technical assistance regarding measures to improve farm level production, adoption of adequate hygienic measures which will make them more employable in the jobs created at the aggregator level which generally favour the employment of women. Similarly, training related to animal health improvement will favour women's employment by the FLSPs. Capacity building for production of niche cheese and dairy products will stimulate higher self-employment of women. Finally, adoption of farm improvement measures such as milking machine by target households will reduce drudgery for women.

53. **Targeting of youth:** Direct targeting for securing youth involvement will include: (i) 100% quota reserved for youth owners of FLSP enterprises supported by seed capital financing; youth owned non-extractive livelihood enterprises and youth employment in jobs created by FLSPs; (ii) 50% quota reserved for youth headed households and youth managed farms, supported by seed capital

financing for adopting farm improvement measures; for youth employment in jobs created by aggregators; and (iii) 50% youth memberships of PUAs eligible for grant financing for pasture improvement. In order to facilitate the entry of youth in the value chains, inclusion of youth in training and capacity building initiatives will be given priority. Youth engagement will be a major agenda at the stakeholder platform level where VC actors will consultatively develop measures to increase youth participation. Such measures can include collaboration with technical educational institutions for exposure of students nearing graduation to the project supported enterprises and demonstrations and placement of young graduates in the different enterprises related to the VCs.

54. **Implementation of targeting strategy:** The implementation of the targeting strategy will be reflected in the orientation of the stakeholder platforms and FOs towards this aspect. It will also be reflected in the selection of the clusters, aggregators, FLSPs and target households.

55. **Selection of clusters with high concentration of vulnerable communities:** A stakeholder mapping exercise will be carried out in the programme area to identify the different VC actors and enabling institutions. This study will identify the vulnerable communities based on criteria such as: (i) significant dependence on traditional production systems and little awareness about the food safety norms; (ii) very high dependence of livelihoods on dairy production activities and little diversification of livelihoods; (iii) highly likely to be impacted by the implementation of food safety norms; (iv) higher proportion of women headed households and unemployed youth; (v) possessing animals of breeds which currently have low productivity but have the potential to generate more milk with better practices; and (vi) interested and committed to change. The clusters will be selected in a manner that includes a higher proportion of the vulnerable communities.

56. **Selection of aggregators and FSLPs:** Aggregators and FLSPs selection will be based on BP development which will include the targeting strategy to be followed by them. The selection of the aggregators will be based on criteria that highlight their commitment to develop supply chain partnerships with the target households. E.g. (i) formal commitment to establish business linkages with target households particularly in the vulnerable communities; (ii) willingness to develop milk collection points in locations nearby to the areas of concentration of target households; (iii) commitment to follow friendly payment terms suitable for target households; and (iv) readiness to employ women and youth in new jobs created to manage the processing and milk collection systems. The BPs submitted by these actors will indicate: (i) targeted number of target households including youth and women to be linked; (ii) proportion of the linked households drawn from vulnerable communities; and (iii) potential returns to the target households including youth and women.

57. **Selection of PUAs and other FOs:** Criteria for selecting FOs will include indicators such as: (i) at least 50% youth members and 30% women members to be eligible for programme assistance; and (ii) intention to increase membership from the DiMMA target group in the vulnerable municipalities.

58. **Selection of target households:** Target households will be selected through: (i) sensitisation and orientation of the target households about programme details and mobilising expressions of interest; (ii) participatory wealth/poverty ranking of the interested households; and (iii) selection and verification of eligible households.

59. Sensitisation, orientation and capacity building of the target households will begin during stakeholder mapping study. The stakeholder platforms will have representatives from the vulnerable communities and will be oriented to promote the inclusion of target households in the dairy VCs. Community level campaigns, more focused on the vulnerable communities, will be carried out, encouraging target households to participate in exposure and capacity building events. During these campaigns the criteria for selecting target households will be clearly explained. DiMMA will invite expressions of interest from target households who participate in the exposure and training activities.

60. Participatory social ranking: The applications received will undergo first level of screening by the stakeholder platforms mainly to ascertain the completeness of the information. Thereafter, DiMMA

will invite community representatives mainly from the vulnerable communities for social ranking of the applications into three categories poor, moderately poor and borderline.

61. **Final selection and verification of applicants** will be conducted by a joint team comprising representatives of the aggregators, stakeholder platform and DiMMA. The team will review the applications and select beneficiaries in priority from the poor category followed by the moderately poor and borderline categories. The field facilitators and representatives of the aggregators will conduct household visits for shortlisted candidates to verify and validate the target household selection. The quota for youth starter packages and starter packages for women will be respected during the selection process.

## **B. Development objective and impact indicators**

62. **Goal:** DiMMA's goal is rural economic development and poverty reduction by contributing to modernization and emergence of a competitive, diversified, resilient and sustainable dairy industry.

63. **Objectives:** The development objective is to enhance the livelihoods and resilience of smallholder dairy producers, especially in mountain areas, and improve the management of the natural resources on which they depend.

64. **Project duration:** The duration of the programme will be 6 years.

65. **Project outreach:** DiMMA will: (i) provide 6,740 target households with better access to services, inputs and markets. Of these, 4,220 will be linked to dairy VCs through profitable partnerships with aggregators, 370 will be employed in new jobs for youth and women in the small enterprises developed in the programme area, 250 youth will start non-extractive livelihood activities and 1,900 will benefit from improved productivity of pastures; (ii) support the development of 121 small enterprises (75 aggregators and 46 farm level service providers) leading to the capacity to process 240 tons of milk per day in the programme area; and (iii) bring 9,500 Ha of land under climate resilient management. In addition, DiMMA will have 9,880 indirect beneficiaries. Of these, the rehabilitation of 300 kilometres of pasture roads will indirectly benefit 5,000 households and the small enterprises will provide indirect benefits to 4,880 households.

66. **Key impact indicators:** The key impact indicators are: (i) 10% farmers reporting increase in milk production in Georgia; (ii) at least 30% increase in the monthly income of target households by the end of the project; (iii) 90% of the target households reporting increase in productivity and production of dairy products; and (iv) 100% increase in the volume of milk processed by aggregators in the project area.

67. **Programme overview:** DiMMA will broker the development of profitable linkages between target households and dairy aggregators in the programme areas by: (i) assisting target households to improve their dairy production systems in order to increase the supply of superior dairy products based on market demand; (ii) supporting dairy aggregators to modernise their equipment and procedures and increase their milk collection outreach to the target households; and (iii) organising the target households and other VC actors into stakeholder platforms and FOs that undertake discussions/negotiations to ensure regular supply of critical volumes of high grade milk required to generate economies of scale for all actors. Alongside, DiMMA will support the emergence of FLSPs to supply the specialized services and inputs (e.g. fodder, AI and veterinary services, machinery services) which are required by the target households to achieve their dairy production targets. The FOs and stakeholder platforms will emerge as inclusive institutions stimulating policy dialogue and developing a strong enabling environment for supporting the growth and profitability of the dairy VCs.

68. **Cluster development approach:** DiMMA will follow a dairy cluster development approach to facilitate sufficient and regular availability of high grade milk required to sustain the dairy processors and milk collection centres operating in the programme area. A dairy cluster is an economic and geographic entity which includes a production basin, milk collection centres, as well as up- and downstream VC actors to which the producers and processors from the basin are connected.

69. *Cluster composition:* The essential stakeholders in each cluster will comprise: (i) existing or committed presence of at least one aggregator; (ii) sufficient numbers of target households preferably from mountainous and foothill areas – around 20 progressive producers and 250 market vulnerable producers to meet the aggregators' demands for milk; (iii) at least one farm level service provider each for mechanization services, AI and veterinary services drawn from public, NGO, and private sector; and (iv) at least one PUA for better management of the pasture resources used by the dairy producers in the cluster for grazing their herds. The 'catchment area' of a local dairy initiative cluster will be defined by its participants and will range within a radius of 45 - 90 km for smaller clusters, and around 90 - 120 km for larger ones. However, this model is indicative, and all genuine business initiatives related to the dairy VCs will be allowed to emerge based on local realities in the clusters.

70. *Cluster identification:* Dairy clusters will be identified through a preliminary stakeholder mapping study conducted at the beginning of the programme to determine the extent of presence of the essential stakeholders in order to earmark the clusters. The study will identify 15 clusters to be developed in two phases - innovation phase and adoption phase:

- **Innovation phase (years 1 and 2):** In this phase the programme will focus on developing 6 clusters in priority around existing aggregators. At least one cluster will be located in a mountainous area and one more in the foothills. The clusters will have existing presence, or the committed presence of at least one aggregator within six months of DiMMA's start-up workshop. Where present, preference will be given to performing, government supported, dairy processing cooperatives as the aggregator. The dairy VCs in these clusters will be stabilised by: (i) brokering partnerships between progressive dairy producers and aggregators; (ii) supporting demonstration of technical innovations in the farms of the progressive dairy producers; (iii) exposing other VC stakeholder to the demonstrations to develop their appetite for adopting these models; and (iv) developing dairy stakeholder platforms and FOs to strengthen the enabling framework of the dairy VCs.
- **Adoption phase (years 3 to 6):** In this phase the programme will develop an additional 9 clusters. The focus on selecting clusters from mountains and foothills will continue. Characterised by growing numbers of market vulnerable dairy producers being included in the dairy VCs through the adoption of the programme supported technologies and business models. Membership and participation in stakeholder platforms and FOs will increase along with strong policy dialogue initiatives.

71. The two phases will not operate in isolation. Adoptions of technology and business models will start during the innovation phase just as demonstrations will continue during the adoption phase. In order to develop the clusters, the programme will implement its activities in collaboration with other public, private and producer partners within the frameworks of a 4-Ps approach as described below.

72. **4-Ps based implementation arrangements:** DiMMA's investments in the clusters will be based on 4-Ps (Public, Private, Producers Partnership) implementation arrangements aimed to develop profitable market linkages between the target households and sustainable dairy aggregators that increases their income, particularly the income of the target households. DiMMA will help to broker these linkages, and make them inclusive and competitive by addressing the challenges related to safety, regularity and volume of milk supplied by the target households. DiMMA will develop stakeholder platforms in each region (refer Subcomponent 1.2) which will be supported to facilitate negotiations and brokering partnerships between the VC actors based on equitable distribution of profits between different partners.

73. *4-Ps BP development:* The 4-Ps approach will be initiated through the development of BPs at three levels: (i) producer level: focusing on the adoption of improved and hygienic dairy production systems by the target households to ensure **regular supply of high grade milk and other dairy produce** required by aggregators in the cluster; (ii) farm level service provider level: aimed to increase the **supply of inputs and services** (fodder, veterinary care) to target households for improved and hygienic milk production; and (iii) aggregator level: dwelling on increasing the **demand**

**for high grade milk and other dairy produce** at the cluster level and on mechanisms to meet this demand through sustainable linkages to target households in these clusters.

74. *Financing the BPs:* Although commercially viable, most of the above mentioned businesses will find it difficult to access commercial loans immediately due to the high start-up risks associated with them. These risks arise from: (i) the adoption of innovative technologies and business models not widely tested earlier; (ii) rural presence of the businesses in emerging dairy clusters which are highly exposed to marketing risks; (iii) ownership by households having insufficient assets to fulfil the physical collateral requirements; and (iv) absence of documented business records. To overcome this challenge DiMMA will provide **seed capital financing** to meet the start-up financing requirements of target households, farm level service providers and aggregators during the early stages of cluster development and **grant support** to PUAs to adopt pasture improvement measures to increase pasture productivity and adaptation to the effects of climate change.

75. Seed capital financing will be provided through the Dairy Value Chain Development Facility (DVCF) of the programme. DVCF which will be managed by the Agriculture Project Management Agency (APMA) and will meet 60 to 80% of the investment costs depending upon the nature of business and phase of financing - innovation or adoption. *Target households* will be eligible for seed capital support to kick-start the improvement of their dairy production systems by adopting farm improvement measures such as milking machines, barns' renovation, etc., while *young entrepreneurs* can use seed capital support to initiate dairy development services in the programme areas, e.g. feed and input supply, AI, veterinary services. They can also adopt non-extractive alternative livelihood activities (pilot only) for a more diversified rural economy, less dependent on limited natural resources affected by climate change (e.g. water, pastures), and *aggregators* can use seed capital assistance to expand their milk collection and processing chains to the production basins with higher concentration of the target households and for developing niche market production systems such as pasture collection and processing facilities.

### **C. Outcomes/Components**

76. The programme has two principal and inter-related technical components (i) Dairy VC Development and (ii) Institutional and Organisational Development.

#### **Component 1: Dairy Value Chain Development – EUR 38.69 million**

77. The expected outcomes are: (i) dairy VC innovations and capacities developed; and (ii) milk production, milk safety, marketing and profitability of target households improved through 4-Ps model. It has two mutually reinforcing sub-components (SC): (i) SC1 - Demand driven demonstration of dairy production and business models; and (ii) SC2 - Strengthening stakeholder linkages to dairy VCs.

##### **Sub-component 1.1: Demand driven demonstrations of dairy production & business models**

78. This subcomponent will assist dairy aggregators to expand the outreach of their milk collection and dairy product supply chains to the programme communities. Profitable linkages between the aggregators and target households will be initiated based on the 4-Ps approach. Some of the progressive dairy producers who are linked to the aggregators will carry out on-farm demonstration of innovative dairy production technologies and business models. The market vulnerable producers in the programme area will be exposed to these demonstrations, trained and prepared to adopt the improved production models and start profitable partnerships with the aggregators.

79. **Partnership between progressive dairy producers and aggregators:** DiMMA will partner with 75 dairy aggregators in the programme area to strengthen their processing capacities, and expand the outreach of their milk collection and dairy produce supply chain to the programme communities. These aggregators will create 324 new jobs for youth and women, for managing their dairy processing and milk collection operations. Additionally, they will develop milk and dairy products supply partnerships with 3,900 target households, and support their VC integration. Selected aggregators will receive seed capital financing for equipment, machinery and facility development to

strengthen their dairy processing and milk collection capacities in the programme areas. They will also receive management and implementation support and assistance to strengthen their milk and dairy product collection chains by organising target households and ensuring that the target households supply dairy products according to aggregators' requirements.

80. Out of the 75 DiMMA supported aggregators, 46 will be small scale and 29, medium-scale, as follows: (i) Small-scale, farm based aggregators: They will have 100-500 litres milk processing capacity per day, primarily for the production of niche dairy products in summer pastures in compliance with food safety standards. These products will be sold to local tourists in restaurants and hotels and also in other niche markets; and (ii) Medium scale processing units: They will have average 6 tons milk processing capacity per day. They will be linked to milk collection centres in the mountainous pasture areas as well as in locations in the plains with higher concentration of target households.

81. The aggregators can be existing or potentially new dairy processing cooperatives, SMEs (individual or private companies) and large dairy enterprises already operating or planning to start operations in the programme area with DiMMA partnership. Preference will be given to programme partnerships with performing government supported dairy processing cooperatives. The programme supported production and marketing infrastructure can be owned and managed directly by these cooperatives. Other aggregators, mainly large private enterprises will be supported to explore partnerships with municipalities and FOs which will be involved in potential ownership and management of MCCs and associated processing facilities and equipment. DiMMA will engage capacity building service providers (CBSP) to facilitate the process of aggregator selection, financing and implementation support. The CBSPs will provide their support in close collaboration with ACDA for selection and development of cooperatives in the programme areas.

82. In order to select aggregators, DiMMA will invite expressions of interest from interested aggregators followed by their shortlisting by a selection committee appointed by the PMU. The shortlisted aggregators will receive technical assistance from CBSPs to develop detailed BPs based on consultations/negotiations with other VC actors facilitated through the regional stakeholder platforms (refer C2). The selection committee will review the BPs and select partner aggregators based on criteria including: (i) the projected outreach of the aggregator's linkages to target households for milk and dairy products collection, especially to target households in the more vulnerable communities (60%) as identified by the stakeholder mapping exercise (C2); (ii) the projected growth in employment provided by aggregator to target households; and (iii) climate risk adaptation measures proposed. Selected aggregators will be eligible for seed capital financing from the DVCF as described in SC 1.2. They will also receive implementation support from the CBSPs as detailed in activity 1.3.

83. *Linking selected aggregators to progressive dairy producers*: DiMMA will assist the selected aggregators to develop partnerships with 320 progressive dairy producers in the 15 clusters to meet the milk supply requirement of these aggregators during the early stages of cluster formation. DiMMA will assist these producers to improve the productivity and production of their dairy farms rapidly, to meet the requirements of the aggregators. Selected producers will be eligible for seed capital financing for farm improvement activities such as barns' development and purchase of milking machine and cows. They will also receive technical assistance to improve business capacities and compliance with food safety regulations and for developing the contractual arrangements to supply dairy produce to the aggregators. During the innovation phase (years 1 and 2), 120 progressive producers will host on-farm demonstration of improved dairy production and business models that can increase the profitability of their partnerships with the aggregators.

84. Potential progressive dairy producers in the programme area will be identified initially through the stakeholder mapping exercise carried out at the beginning of the programme. This group will be shortlisted through discussions at the stakeholder platform. Interested shortlisted producers will receive technical support from CBSPs to develop BPs. These BPs will serve as future templates for BPs for market vulnerable dairy producers during the adoption phase. The BPs will be reviewed by

the selection committee which will select eligible progressive farmers based on criteria including: (i) ability to rapidly comply with food safety norms; (ii) potential to produce and supply relatively large quantities of high grade milk throughout the season as required by the partner aggregators; and (iii) potential and interest to host on-farm technology demonstrations Selected progressive farmers will be eligible for seed capital financing from the programme supported DVCF (SC 1.2)

**85. Demonstration and dissemination of technologies and business models:** DiMMA will support the on-farm demonstrations of modern, innovative production technologies that improve milk quality, reduce seasonality of production and increases productivity and cost efficiency of dairy production. These demonstrations will be supported in the farms of 120 progressive farmers who are already linked to aggregators in the innovation phase. These demonstrations, in real local conditions, will enable the market vulnerable producers in the neighbourhood to understand the benefits and implications of the technologies and will develop their appetite for adoption. The technologies and business models demonstrated must increase the profitability of the producer household from its partnership with the aggregator. DiMMA will train these producers on the technical and business aspects of the technologies being showcased. It will also supply the necessary inputs for the demonstrations (e.g. forage seeds, fertilizers), and will contribute to some of the investments (e.g. fencing for rotational grazing). When services are needed for the demonstrations (e.g. silage making services, AI services), DiMMA will contract farm level service providers to deliver these.

**86. Areas of demonstrations:** The main demonstration areas will be: (i) fodder production: fodder varieties and production techniques for improved, year round, quality fodder availability; (ii) fodder conservation techniques: silage making, for higher nutritional content, better nutrient preservation, more palatability to livestock; (iii) AI and crossbreeding: AI campaign, for up to 10,000 cows with breeds selected for adaptability to local conditions; (iv) manure management: manure composting units for own farms and commercial supply to others; (v) energy saving, climate smart pilots: milk precooling, heat exchanger technology, solar energy for pre-heating water, to reduce energy consumption in processing units; (vi) Milk quality management and milk hygiene: hygienic milking practices, mastitis detection and prevention techniques, improved milk handling methods; (vii) animal health and welfare: preventive health packages and animal welfare measures (e.g. improvement of winter housing);(viii) collective pasture management: in sites (16 sites) showcase technologies for improving grassland productivity e.g. fencing, rotational grazing, weeds management, control of invasive species; and(ix) livestock and pasture risk management: with a focus on wild animal attack prevention and the use of finance for risk management, including but not limited to insurance.

**87. Selection of progressive producers for demonstrations:** Interested producers will express interest in hosting on-farm demonstrations at the time of applying for linkages to aggregators. The BPs for supporting their linkages to the aggregators will also include the details of the demonstrations. Eligible households will be selected based on: (i) capacity to organise the labour requirements to manage the demonstrations; (ii) literacy levels to keep the records; (iii) potential for scaling-up the demonstrations based on success; (iv) accessible location of demonstration. DiMMA will sign an agreement with these producers detailing their respective roles and responsibilities, ownership of the assets financed by the programme, reporting, monitoring and supervision responsibilities.

**88. Technology knowledge dissemination:** In order to facilitate technology dissemination, DiMMA will organise: (i) Field days: For 6,000 farmers over 1,200 field days when farmers from the community will gather on the demonstrate site and interact with the host farmer about the benefits and constraints of the technology; and (ii) Exposure visits to enable VC actors and other stakeholders such as representatives of banks, local authorities, decision and policy makers to develop their understanding and support for the innovative technologies and services. In addition knowledge dissemination will be done through leaflets and brochures, TV and radio programmes.

**89. Capacity building of value chain actors:** DiMMA will train 3,820 dairy producers (3,500 market vulnerable 320 progressive dairy producers) on technical and business management areas in order to develop their capacities to successfully adopt the programme promoted technologies showcased through the demonstrations. Business management training will use dairy farming case

studies to help participants gain the business skills to make key investment decisions, negotiate with suppliers or buyers, or approach banks with loan proposals. This will be done simultaneously with the technology demonstrations and practical technical training on topics such as: milk hygiene and compliance with new foods safety regulations, fodder conservation, herd management and grazing management. At the end of each training, participants will be subjected to performance assessments. The performance assessment scores will be kept in record and will be taken into consideration while selecting beneficiaries for seed capital financing from the programme.

90. The CBSPs hired by the programme will be supported by international technical assistance to develop business and technical training curriculum, content, material and delivery methodology. Participants' performance assessment tools will be designed. The programme technical staff in the PMU, RO and LCO along with a pool of field facilitators in each region will participate in Training of Trainer (ToT) sessions facilitated by an international technical service provider. Thereafter, the field facilitators will be contracted as required for developing the BPs and training the market vulnerable producers. The programme technical staff and the field coordinators will be responsible for supervision and quality control. Where relevant, partnerships with the Governmental District based Information and Consultancy Centres (ICCS) and/ or Agrarian University will be explored for delivering the training session.

91. The CBSPs will also be responsible for training representatives of 80 processors and farm level service providers in business management and technical issues such as management of food safety and implementation of HACCP. An international trainer, will be hired to train 21 AI technicians at the beginning of the programme on theoretical and practical aspects. Training to AI technicians will assist them to master the AI techniques and increase the success of AI in the programme area.

#### **Sub-component 1.2: Strengthening stakeholder linkages to the dairy value chains**

92. This sub-component will focus on the inclusion of 4,220 target households, 42 farm level service providers and 75 aggregators in the dairy VCs through the adoption of innovative technologies and business models promoted by DiMMA. Seed capital financing will be extended to assist them to adopt these improved models and partner in the dairy VCs. In order to improve the productivity of pastures and the profitability of the producers who depend on pasture grazing, PUAs will receive grants to adopt pasture improvement measures. Simultaneously, in order to reduce grazing pressure on pastures, non-extractive livelihood activities will be supported in pastoral communities. Rehabilitation of access roads to the summer pastures will be carried out to improve the market of niche dairy products produced in these areas.

93. **Selection of innovative technology and business model adopters:** This activity will support the adoption of the innovative technologies and business models by 3900 market vulnerable dairy producers. Additionally, it will assist development of 46 farm level service enterprises in the programme areas. These enterprises will create at least 46 jobs for managing and delivering farm level services to the programme communities.

94. *Market vulnerable producers:* They will be exposed to demonstrations and provided with training inputs to prepare for the adoption of improved technologies. Thereafter, interested producers will be assisted to develop farm improvement BPs. DiMMA will facilitate discussions/negotiations in the stakeholder platform and broker partnership agreements between these producers and aggregators based on details of their respective BPs. Eligible producers will receive seed capital financing for adopting farm improvement measures such as barn development and purchase of milking machine. They will receive continuous technical assistance to improve business capacities and compliance with food safety regulations and for developing the contractual arrangements to supply dairy produce to the aggregators. Moreover, DiMMA will link them to FLSPs for access timely services and inputs to increase productivity and production.

95. In order to select these producers for programme assistance, DiMMA will announce a call for proposal from interested producers. The applications will be screened at the stakeholder platform level followed by social ranking and further shortlisting by the programme appointed selection



committee. Shortlisted producers will receive technical assistance from the field facilitators hired by the programme to develop farm improvement BPs. The selection committee will review the BPs and select eligible market vulnerable producers based on criteria including, social ranking category; involvement of youth and women in management of the programme; presence of potential partnership agreement with aggregator and projected profitability.

96. **Farm level service providers:** The FLSPs will be responsible for delivering timely services and inputs to increase the productivity and production of target households. Youth entrepreneurs interested in delivering these services will be exposed to the demonstrations of these services and provided with training and capacity building to start-up their enterprises in their programme areas. DiMMA will assist them to develop BPs based on which they will receive seed capital financing to renovate their offices, purchase equipment and machinery such as mower, baler, etc. depending on the nature of service. They will be selected based on expression of interest, shortlisting for BP development and assessment of BPs by selection committee based on criteria including youth and women entrepreneurs; outreach to the smallholder farmers and jobs created for youth and women.

97. **Seed capital financing:** The programme will provide seed capital financing to implement the business establishment and start-up requirements of target households, FLSPs and aggregators during the early stages of cluster development. Seed capital financing will be provided through the Dairy Value Chain Development Facility (DVCF). DVCF which will be managed by the APMA, will finance commercially viable businesses that are considered too risky for immediate financing by commercial banks due to: (i) their start-up nature involving innovative technologies and business models not widely tested earlier; (ii) business ownership by households having insufficient assets to fulfil the physical collateral requirements of the banks; (iii) absence of formal business records and past performance documentation of owners; and (iv) rural presence of these businesses in emerging dairy clusters which have high exposure to marketing risks. Additionally, it will finance on pilot basis, non-extractive livelihood in pastoral communities to improve the productivity of the pastures by reducing grazing and animal feeding pressures on these pastures.

98. Thus, the eligible beneficiaries for seed capital support will include: (i) target households who are first time adopters of programme supported technologies or business practices; (ii) youth entrepreneurs starting-up as farm level service providers; (iii) first mover aggregators who bear additional risk to start linkages to target households during the early phase of cluster development; (iv) youth entrepreneurs implementing pilot projects that reduces grazing pressure on pastures. The amount of seed capital financing for each beneficiary will be based on the costs estimated in the BPs. The seed capital financing will meet 60 to 80% of the programme costs depending upon the nature of business and phase of financing - innovation or adoption. The programme will meet a high proportion of the costs during the innovation phase to incentivise the beneficiaries to start-up their activities and begin the VC development process in spite of the high risks involved in the early stages of cluster development. The seed capital financing can be used to finance fixed assets, machinery and equipment, essential civil works such as renovation of premises and improvement of cowshed. Seed capital financing outreach, percentages, ceilings and eligible activities is presented in the table 3 below:

**Table 3: Seed capital financing outreach, percentages, ceilings and eligible activities**

Categories	Seed capital beneficiaries		Seed capital, %,[ceiling in EUR]		Eligible activities
	Innovation phase	Adoption phase	Innovation phase	Adoption phase	
-No of clusters	6	15	6	15	
<b>Individual farmers</b>					
-Market vulnerable producers	270	3,630	80% [8,000]	60% [4,000]	Barn development, milking machine; MI premiums
-Progressive producers	120	200	80% [8,000]	60% [6,000]	Cow, Barn development, milking machine; MI premiums
<b>Farm level service providers</b>					
-AI and Vet	6	15	80% [16,000]	60% [12,000]	Vet office renovation and equipment
-Silage/ Hay	6	19	80% [60,000]	60% [45,000]	Machinery, equipment - tractor, mower, baler, etc

<b>Aggregators</b>					
-Medium scale	9	20	60% [45,000]	40% [30,000]	Building, generator, milk cooler, milk meter, etc
-Small scale	12	34	80% [12,000]	60% [10,000]	Equipment, processing room renovation
<b>Non-extractive livelihoods</b>					
-Pilot projects		250		80%[1,500]	Touristic activities in the pasture areas, collection of medicinal and wild forest products, etc

99. The remaining programme cost including working capital needs will be financed by beneficiary contribution. This can be from own savings, borrowings from FIs, grants and subsidies mobilised by the beneficiary. The programme will support beneficiaries to mobilise commercial bank financing: (i) at the beginning through the cheap credit program of the government for agricultural loans; and (ii) in the medium to long run by making use of potential MI and collateral guarantee facilities.

100. *Cheap credit for agricultural loans:* The BPs selected for seed capital financing will be shared with the commercial banks participating in the cheap credit program managed by the APMA, inviting financing proposals from them for the balance projects costs after seed capital financing. The financing proposals will include terms and conditions such as the loan amount, duration, collateral requirements and grace period. The offers from the different banks will be presented to the beneficiary to select the most suitable option. APMA in coordination with CBSPs hired by the PMU will coordinate to receive financing offers from the commercial banks. The field coordinators at the LCOs will anchor the engagement with the beneficiaries for selecting the banks.

101. *Linkages to microinsurance services:* An IFAD insurance and rural risk management grant project is focussing on market assessment and pilot testing of MI products under the technical management of MIC. The project is entitled: 'Managing risks for rural development: innovations in microinsurance'. This IFAD-funded grant project runs from 2017 – 2020 and will coincide with DiMMA's innovation phase. The MIC project can be leveraged and built on by DiMMA in order to: (i) improve the livestock insurance market to meet the gaps faced by DiMMA's target groups over the medium to long-term; and (ii) potentially, scale-up the insurance product(s)/scheme(s) piloted under the grant project, if experience and conditions are favourable following the grant's assessment and recommendations on its closure.

102. The MIC project's market and feasibility assessment stage will determine the most viable product(s) to be piloted. The focus will be on livestock, such as insurance for livestock mortality or disease. Other insurance products, including but not limited to drought insurance for pasture / fodder producers, will be considered, too. From DiMMA's perspective, if technically feasible, the most appropriate livestock insurance products should offer the benefits of: (i) credit guarantee to FIs for livestock financing, enabling the FIs to recover their outstanding loans from the insurance company in the event of animal mortality or diseases seriously affecting their productivity. This will allow the FIs to finance livestock without requiring physical collateral from the borrowers, and thus enabling the target households with limited collateral to access commercial funds to grow their herd size or replace existing animals with higher value breeds; and (ii) partial investment and production guarantee to the smallholder producers allowing them to recover part of the costs incurred till the time of mortality / disease and also the income forgone because of mortality/disease. The premium requirements for livestock-related products during pilot testing is likely to be high, but affordability and value is something being assessed by MIC. Entry points and scheme design relevant for DiMMA will be further defined by MIC and could potentially link with other implementing groups/institutions e.g. with PUAs, the inputs and services offered by FLSPs, dairy aggregators, or planned VC financing mechanisms.

103. DiMMA will collaborate with MIC to focus the pilot testing of one or more viable appropriate products (2019-20) on market vulnerable and progressive dairy producers during the innovation phase. DiMMA's farmer sensitisation, demonstration and capacity building packages will include MI modules to support market development and roll-out of these products in the programme areas. DiMMA will coordinate with the MIC and the pilot insurance companies to ensure that the products cover the needs of the market vulnerable and progressive producers as discussed above. Where this

condition is fulfilled to the satisfaction of DiMMA, it could offer some support to the insurance costs by allowing the adopters of MI products to make partial payment (50-60%) of insurance premium from the seed capital accessed by them for farm improvement activities. Additionally, as a part of its policy development mandate (SC 1.2) DiMMA will support the MEPA to develop a detailed strategy, including supporting evidence for establishing and implementing a national animal disease compensation fund. The future development of a compensation fund based on this strategy will provide owners of infected animals an incentive to seek professional advice and alert the authorities as early as possible. It will enable early control of epidemic outbreaks and protect farmer community and broader public health.

104. The MIC project will involve DiMMA in the assessment of the pilot results. Based on the results of this assessment, and the agreement of DiMMA management, the scope of DiMMA's future activities, for scaling up the experiences of the pilots, will be defined. Some of the potential areas that may be addressed through potential future collaboration are further design and development of livestock compensation fund, TA to insurance companies, government and insurers for developing enabling policy environment and design of a livestock insurance pool.

105. *Support the development of collateral guarantee facility:* DiMMA will support technical studies to explore the possibilities for establishment of a collateral guarantee facility to foster mobilisation of commercial loans for livestock financing. This mechanism could be spawned within the APMA with the aim to spin it off as an autonomous initiative in the future that can receive contributions from other donors and the government for facilitating loans to the agricultural sector. The proposed technical study will provide a draft design of this facility, with draft operational procedures. The potential collateral guarantee facility will replace a part of the collateral required from the borrower (70-80% of the loan) with a guarantee from the facility resulting in smallholder farmers without sufficient collateral to access loans from commercial banks. The presence of this mechanism will allow target households to easily graduate from grant financing to commercial financing.

106. **Other support to facilitate access to finance:** DiMMA will adopt a number of steps to assist target households to improve the financial management of their businesses and also access to formal financial services for future growth of their businesses. These steps are discussed below

107. *Training and capacity building:* The capacity building modules will include financial management lessons that focuses on developing savings and small investment habit of households. The target households will use these inputs for improved management of the cash flows from the dairy production activities. This will enable them to increase their self-contribution for expanding their businesses which will also encourage financial institutions to lend to these producers. They will also receive inputs on keeping business records which will also assist formal financing linkages in the future. Innovative savings mobilisation schemes will be piloted, e.g. assisting the target households to open bank account and save up a certain amount of cash contribution in order to be eligible for seed capital financing.

108. In addition to the measures discussed above, the project will facilitate technical assistance to banks which demonstrate higher appetite for co-financing target households for the start-up dairy production projects. DiMMA will provide technical assistance to these banks through CBSPs to develop specific asset and working capital financing products that improves the financial access of the target households. The CBSPs and the field facilitators who develop the BPs for the target households will also be mandated to mobilise co-financing from formal financial sources supplementing the efforts of APMA in this regards, as described earlier.

109. **Management of the DVCF:** The management of DVCF, will be undertaken by the (APMA) which implements and manages variety of projects initiated by the MEPA. APMA is already in charge of managing matching grants funds for another IFAD programme, "Agriculture Modernization, Market access and Resilience programme "(AMMAR) programme. The role of APMA will be to manage the grant, including receiving, and reviewing applications, allocating and transferring funds, and controlling their proper use. In order to manage the workload related to the appraisal of the BPs and

financing plans, disbursement and monitoring the APMA will contract professionals with banking experience to specifically to handle the responsibilities related to management of DVCF.

110. In order to access DVCF funds, beneficiaries have to formulate and submit an application and a BP, including a financing plan as already discussed. A specific DVCF manual, based on the manual prepared by IFAD and GoG for the implementation of the AMMAR programme through APMA, will be prepared setting out the process for application, evaluation, disbursement, monitoring, and including forms/templates to be used and dedicated sections for financial management and procurement.

111. **Implementation support to new VC actors.** DiMMA will provide implementation support, especially to new VC actors who needs support to identify their targets, get known, establish marketing channels, and develop marketing strategies. The programme partner with individual BDS providers and specialised firms to support the following:

112. *On-demand marketing support:* small and medium scale processors and home-based processors will receive marketing support through market studies, promotion campaigns, trade fair/marketing events participation, packaging and branding and facilitation of linkages with clients (following the successful example of the wine industry).

113. *Supporting branding and differentiation of premium mountain dairy products:* The formulation and registration of collective brand, label or denomination of origin for local premium cottage cheese, will be supported. It will enable small and medium scale processors, especially those in mountainous areas, to differentiate their products and reach high end niche markets.

114. *Business and technical coaching:* FLSPs, aggregators and target households who receive seed capital financing from DiMMA will be enrolled in a hands-on coaching programme, for consolidating the capacities acquired during the initial training sessions. They will be assisted to implement the plan, mobilize the necessary resources and monitor and analyse progress. Food safety and implementation of HACCP approach will be an important aspect of this coaching of processors in order to assist their compliance with regulations. These coaching/BDS will be delivered by the DiMMA technical staff, field facilitators and CBSPs. The programme will gradually introduce payment for these services by beneficiaries to ensure the sustainability of these services after the programme closure.

115. *Capacity building of CBSPs:* CBSPs will be selected through a call for proposals in the programme areas and will comprise individuals or consultancy firms, who specialize in provision of advisory services the dairy industry. The selected individuals/firms will be supported to equip and furnish their offices and receive international ToTs in areas such as: (i) business management including formulation of BPs; (ii) dairy processing including food safety and HACCP aspects; and (iii) marketing techniques.

116. **Piloting a mobile based traceability system for milk:** The programme will pilot a mobile based milk traceability system that allows both traceability and management of quality, and management of deliveries and payments to farmers. The piloting of this system will be done first with an industrial dairy who volunteers to test it and could then be expanded to the whole region.

117. **Pasture development:** DiMMA will complement the Government's investments to support enhanced access to pastoral developments in high-mountains. It will provide grant financing to PUAs to support activities to improve pasture resilience to climate change and support the adaptation of pastoral livelihoods, consistent with the Pasture Management Plans (PMPs) to be developed by the PUAs. Grant financing will be provided through the Pasture Adaptation Fund (PAF) which will be managed by APMA. Because it is intended to protect or enhance the value of natural capital that is collectively-managed and publicly-owned, the Pasture Adaptation Fund will not require co-funding from the pasture users. These investments are expected to improve/protect the productivity a total of 50 lowland and 26 highland collectively-managed pastoral ecosystems with an estimated total surface of 9,500 ha managed by 76 PUAs benefiting an expected 3,800 households (50% receiving seed capital assistance).

118. The activities, *inter alia*, which will be eligible for grant support are (i) construction or rehabilitation of watering points; (ii) Restoration of degraded pastures through rotation, fencing, etc; (iii) water management measures to favour pasture resilience; (iv) measures to prevent soil erosion, mudslides and floods, including plantation of bushes and trees that can also act as a barrier against storms and wind; (v) Infrastructure to enhance the value of summer pastures e.g. livestock shelters and corrals in conformity with EU animal welfare standards; and (vi) restoration of riverine vegetation.

119. The grants to the PUAs would be channelled through APMA in line with the investment design determined by the respective PMPs. The PUAs would be expected to commit to the implementation and the achievement of the targets by signed agreements, which would envisage a phased financing of the PMPs against clearly identifiable milestone indicators. Subject to the PUA's agreement and priorities, a block grant will be provided to each PUA for the implementation of its plan. The exact amount of each grant would be linked to the PUA membership, pasture area, level of poverty, livestock number, and institutional capacity of PUA evaluated against agreed upon indicators.

120. **Management of PAF:** The PAF will also be managed by APMA which will channelize grants to the PUAs in line with the investment design determined by the respective PMPs. The PUAs would be expected to commit to the implementation and the achievement of the targets by signed agreements, which would envisage a phased financing of the PMPs against clearly identifiable milestone indicators. Subject to the PUA's agreement and priorities, a block grant will be provided to each PUA for the implementation of its plan. The exact amount of each grant would be linked to the PUA membership, pasture area, level of poverty, livestock number, and institutional capacity of PUA evaluated against agreed upon indicators.

### **Marketing infrastructure development in summer pastures**

121. This activity will mainly involve the rehabilitation and improvement of 300 kilometres of gravel roads that provide access to summer pastures. Rehabilitation of access roads will: (a) enable farmers to bring their liquid milk twice a day to the nearest village and collection point; (b) enable service providers such as veterinarians to access the summer pastures and deliver services; and (c) alternatively, enable the growing number of smallholder dairy farmers who sell liquid milk, and prefer to keep their lactating cows on-farm, to bring transport machinery and hay from the summer pastures to feed to the animals on-farm. It will also reduce the social isolation of those who provide shepherd services, which can be a deterrent for younger generations.

122. This activity will be funded under the GoG contribution. The PUAs will identify the roads which require rehabilitation through consultation at the stakeholder platforms which will also involve the representatives from the infrastructure development department of the MEPA. The list of the roads which require rehabilitation in a year will be shared and agreed with the regional governments before the start of the financial year.

### **Component 2: Institutional and organisational development; EUR 5.60 million**

123. The expected outcomes of this component are: (i) dialogue between dairy sector stakeholders; (ii) active and sustainable FOs engaged in policy dialogue. It has two sub-components (i) Community mobilisation and stakeholder organisation; and (ii) Policy dialogue.

#### **Sub-component 2.1: Community mobilisation and stakeholder organisation**

124. **Community mobilisation and facilitation of stakeholder organisation:** Most projects in Georgia conduct the mobilisation of potential beneficiaries with support from local government (referred to in Georgia as 'self-government') bodies, which either prepare lists of potential beneficiaries, or organize meetings at the municipal level inviting potential beneficiaries. Some also organize village level meetings using programme field facilitators.

125. DiMMA will deploy up to 30 field facilitators - depending on the phase of implementation - who will collaborate with local government bodies (both technical agricultural and veterinary as well as administrative staff) and local level opinion leaders and resource persons to mobilise communities. They will start their work by identifying existing organising practices (such as, for example, the 'camps'

in the summer pastures and their various configurations) and patterns of collaboration among community members, related by family ties and otherwise. The core idea of community mobilisation will be to build on these in order to strengthen stakeholder networks, gradually over time, and to directly and indirectly contact as many potential programme beneficiaries as possible. It will be important to identify, as soon as possible, some of the more progressive farmers and aggregators.

126. The programme field facilitators will be in charge of conducting an information, education and communication (IEC) campaign on the programme and its implementation arrangements, using a range of communication channels. They will identify a small number of local “champions” for the programme, possibly youths interested in dairy activities, who will continue their mobilisation and outreach efforts, on a voluntary basis. As an incentive, these volunteers will be provided with training opportunities as well as a limited number of free recharges to their cell phones.

127. **Development of local dairy initiative clusters and platforms:** The community-level entry point for the implementation of programme activities will be 15 local dairy initiative clusters.

128. *Development of stakeholder platforms:* The main entry point for the planning of programme activities and for addressing policy issues, sectoral, territorial, and so on, will be three dairy initiative cluster platforms (one for each participating Region). Platform participants will be representatives of all types of cluster stakeholders (see (i) to (iii) above) plus (iv) public sector representatives, including from technical and research as well as from municipal institutions. Their common objectives will be to: 1) suggest and endorse potential beneficiary farmers, processors and service providers who meet the eligibility criteria of the programme, in particular young people and women; 2) identify critical technical, institutional and other constraints and opportunities along the local dairy VCs; and 3) identify and facilitate arrangements to address these constraints and take advantage of these opportunities. DiMMA will support the stakeholder platforms to broker the partnerships between the VC actors and reach agreement on prices based on equitable distribution of profits between different partners. Thus, the platforms will help to mediate, facilitate and negotiate the business arrangements between the different VC actors, and in some cases will contribute financially to their implementation.

129. DiMMA will help to broker these linkages, and make them inclusive and competitive by addressing the challenges related to safety, regularity and volume of milk supplied by the target households. DiMMA will develop stakeholder platforms in each region (refer Subcomponent 1.2) which will be supported to facilitate negotiations and brokering.

130. The platforms will be used to collect and disseminate information and data, including as a conduit for the continuous rollout of the Information, Education and Communication (IEC) campaign. The first activity of the platform participants, will be the identification and analysis of constraints and opportunities related to dairy production and processing, VC bottlenecks, and related capacity building, investments and/or facilitation needs. With the regular active involvement of the programme field facilitators, platform participants will then define priorities in terms of investments, capacity building, market arrangements, etc. The priorities will be organized into a synthetic document (dairy cluster development plan, which will be a rolling three-year-plan).

131. The platforms will be expected to make contributions to further improve the enabling environment of the dairy sector in Georgia in general, and in mountainous areas in particular. They will be used to monitor the effects and impact of the forthcoming EU norms and standards as well as other policy and regulatory changes affecting local stakeholders. The programme will place particular emphasis on monitoring and evaluating the effects and impacts on IFAD target groups, youths and women, and individuals with less than five cattle and few other livelihood options.

132. Cluster and platform participants will be made up of at least 30 percent women. Special attention will also be given to youth-related matters, and to identifying young champions of change which will network through the clusters and platforms, and beyond. The platforms will be the ‘custodians’ of DiMMA’s targeting policy and mechanism and will be used to guide programme decision-making in terms of poverty focus. In this connection, the platforms will be used to pre-identify and then screen and finally validate applications of potential beneficiaries to be selected for

programme support (seed capital and grants). The platforms will designate representatives to the national dairy policy dialogue platform and will identify policy issues that need to be brought to the attention of policy-makers at that level.

133. *Sustainability of dairy initiative clusters and platforms.* The local dairy initiative clusters and platforms could eventually evolve towards trade associations (inter-professional bodies) and/or associations of trade associations. The programme MTR will look into these aspects, and will be informed by a stock-taking exercise (assessment of the status of farmer organisation) that will be prepared beforehand by the PMU.

134. **Development of farmers' organisations:** Although DiMMA will support them, cooperatives may be slow to develop as an important player in the modern Georgian dairy sector due to historical reasons and inadequate technical and business support. This is why the clusters and the platforms will be used as a springboard to establish farmer organisations (FO), but only in case there is strong demand from local stakeholders. In all clusters, DiMMA will provide relatively intensive capacity building to farmer organisations including technical, financial and business skills as well as farmer organisation governance, management and gender training and business skills training.

135. DiMMA will join forces with the ongoing ACDA programme assisting dairy cooperatives based on maturity assessment of cooperatives by the field facilitators. DiMMA may collaborate with a cooperative to complement support on: (i) strengthening their milk supply chain and service delivery arrangements; (ii) improving outreach towards poor rural households; (iii) (re) capitalization through linkages with financial institutions; (iv) exploring options for developing financial services associations and savings and credit cooperatives; and (v) business development services.

136. The economies of scale that cooperatives offer to their members typically and most fundamentally revolve around two main attractions, namely, bulk purchase of inputs and bulk marketing of outputs, both of which increase organisational efficiency. To achieve this, DiMMA will support cooperatives so as to strengthen their bargaining power to negotiate better prices for inputs and outputs in the dairy VC. DiMMA will furthermore call for enhancing the development of FOs related to: 1) ensuring efficient and food safety norm compliant infrastructure facility management; 2) developing the market, both on the supply and demand side, for dairy VC related services; and 3) increasing business orientation and strengthening private sector partnerships.

137. The involvement of FOs in potential ownership and management of MCCs and associated processing facilities and equipment will be explored through dedicated committees having relevant partnership arrangements with aggregators. Similarly, involvement of FOs in ownership and management of animal health and AI services, mechanisation services, fodder production and conservation will be explored. The FOs will provide preferential and affordable access to members and potentially to non-members to such goods and services. Likewise, involvement of FOs in business development services will be explored such as developing different types of marketing initiatives at cluster level to provide access to members to such services in affordable terms.

138. *Development of PUAs.* DiMMA will identify existing groups of pasture users and promote the development of more formal PUAs in the dairy initiative clusters. PUAs will be supported to design, develop and implement community-based Pasture Management Plans (PMP) that integrate EU approximation requirements as well as adaptation to climate change and disaster risk-reduction (DRR) measures to increase the resilience of this sector.

139. The programme will support the development of community-based pasture assessment maps to help the PUAs prepare effective community PMPs. PMPs should cover areas such as vulnerability assessment, livestock inventory, pasture assessment map, annual pasture use plan and map, pasture improvement plan and infrastructure improvement plan. Maps will be prepared by the PUAs with technical backstopping from the capacity building service provider hired by the programme. Each PUA will appoint one member-elected volunteer who will coordinate with the service provider and support the implementation of the PUAs. The volunteers will receive a small incentive stipend to cover transport and communications expenses. The service provider will train the PUAs in areas such as

pasture assessment and mapping and management and forage production and conservation. The possible impact of climate change on pasture resources will be taken into account in these trainings. Also, DiMMA will contribute to PUAs' institutional development through supply of basic equipment (computer & software, printer, digital camera, GPS), organizing exchange visits to demonstration sites and the delivery of training to PUA members.

### **Subcomponent 2.2: Policy dialogue**

140. **Support to national dairy policy dialogue platform:** The programme will support the MEPA to establish a National dairy policy dialogue forum which will be convened by MEPA and supported and serviced by the programme. The forum will gather representatives of Government, producers, Georgian Farmers' Association; national level service providers; processors, research institutions; NGOs; donors and regional stakeholder platforms. The National forum will establish strong linkages to the regional stakeholder platforms which will have the key role of identifying the critical policy issues to be addressed through the national platform. The Dairy Forum would be established in the second year. DiMMA will support the cost of meetings and the participation of stakeholders from the programme area.

141. The Forum will be on public policy and regulatory and programme framework for the dairy sector. It will provide an opportunity for: (i) the VC actors to raise their specific policy issues and concerns with Government; (ii) the Government to consult VC actors on proposed legislation associated with the ongoing reforms associated with the with the process of legal approximation with EU standards; (iii) the Government to enter into dialogue with VC actors on key national level policy issues that it has identified as priorities e.g. pasture policy and management, control of public good diseases (e.g., compensation mechanism for brucellosis), the impact of food safety, hygiene, and animal welfare regulation on farmers and small-scale dairy processors; and (iv) the Government and VC actors to discuss the impacts of already-implemented regulations, on the sector and individual groups, and the steps needed to address any negative impacts.

142. The forum discussions may recommend the development of specific policies or regulations, for which the programme will support with international technical assistance, organization of stakeholder consultations and workshops. Such policy developments, if endorsed by the Government, may include: (i) Pasture policy: for better regulation of pastures and rangeland ecosystems - summer, spring/autumn and winter pastures, equitable allocation of pasture rights, and a mechanism for better aligning stocking rates with pasture carry capacity; and (ii) Climate Change Adaptation strategy for the livestock sector - policy dialogue on climate change adaptation/mitigation, disaster risk reduction and environmental sustainability. This can include development of a sectoral adaptation plan for the livestock sector, to be developed in parallel and in conformity with the overall National Adaptation Strategy that is currently being finalized.

143. **Studies to provide evidences to guide policy dialogue:** The programme will provide facts and evidence to the National Dairy Forum to document the policy dialogue. This will be achieved through various means: organization of policy targeted exchange visits, commissioning of background studies to inform the discussion, and provision of high-level strategic and technical assistance to guide policy and strategy formulation. The discussions held in local and regional forums will also provide feedback on policy implementation from the grassroots and VC levels.

144. Specific studies/exchanges of interest may include – but are not limited to – (i) Central Asia study tour (Kyrgyzstan and/or Tajikistan) to find out about existing structures similar to the proposed PUAs, support services available to them, challenges faced and achievements; (ii) Alpine study tour (Switzerland and/or Italy) to learn about mature dairy VCs producing cheese in a similar mountain environment in full compliance with European standards of animal welfare and food safety; (iii) analysis of the economic impact of EU food safety and animal welfare regulations; (iv) pilot testing of alternative organizational models for pasture management on public and private pastures. This may be conducted in collaboration with the Regional Environment Centre for the Caucasus (RECC), a national organization that has acquired significant expertise on pasture management through numerous past and on-going projects in collaboration with the Government, GIZ, UNEP and IFAD



among others and (v) supporting evidence and strategy for establishing and implementing a national animal disease compensation fund.

#### **D. Lessons learned, adherence to IFAD policies, and the SECAP**

145. The design of DIMMA has been informed by the experiences of previous IFAD and donor experiences in Georgia. Given the potential for complementarity with ongoing projects/programmes, (SDC, HEKS-EPER, Mercy Corps, and FAO), agreements through the donor coordination system will be undertaken at inception stage to ensure effective interventions on the ground. Below are some of the key lessons learned from IFAD and other donor projects.

146. *Overall policy environment and government ownership:* A supportive policy environment in which the Government and participating partners are committed to the programme approach is a prerequisite for success. Thus, the activities proposed in the technical components should be relevant to the Government strategy and have strong Government ownership.

147. *Programme management:* The changing management structure in several past IFAD projects in Georgia led to long delays and the dual lines of accountability negatively impacted programme performance. Experience shows that the current programme management arrangements through a semi-autonomous unit of the Ministry of Environmental Protection and Agriculture, with employment conditions that attract and retain competent staff, works well. This will be enhanced through a regionally-devolved structure for better outreach and enhanced implementation.

148. *Monitoring and evaluation system:* Previous projects lacked a well-functioning monitoring and evaluation (M&E) system which hindered the timely response of the PMU to take corrective actions and proper documentation of impact results. The M&E capacity of the programme management unit at the MEPA has been strengthened through staffing and capacity building. A baseline survey, structured M&E and an impact analysis must be included and implemented as main programme activities and supervised as such.

149. *Rural Finance:* As a result of sufficient liquidity in the banking sector, formal financial institutions (Banks and MFIs) are not too keen on receiving low cost funds from IFAD projects for on-lending to target households in rural areas. They consider the scrutiny, record keeping and reporting responsibilities related to managing public funds too cumbersome compared to the benefits from these. Additionally, the obligation to disburse these funds in rural areas to low income clients often to start up their businesses is considered risky. Consequently, there is little appetite for partnerships with IFAD supported projects that involve the management of programme funds as credit lines or in any other form. In order to overcome this challenge related to the formal FIs, the ongoing AMMAR programme partnered with the APMA for managing its rural finance interventions. APMA is a unit in the MEPA which partners with commercial banks for managing subsidies to the agricultural sector (refer appendix 1 for details).

150. Since the AMMAR programme provided matching grants to finance start-up businesses APMA was deemed as the suitable body to implement these grants. However, the grants covered only 40% of investments required by the eligible start-up projects and 60% was expected as beneficiary contribution which was viewed as too high and sometimes target households failed to mobilise their share. Of late, a solution has emerged to this challenge through APMA's cheap credit programme which subsidises the interest rates of 13 partnering banks for agricultural projects. APMA has started coordinating with its partnering banks for co-financing some of the matching grant projects where the beneficiary finds it difficult to meet the 60% share. This process has also benefitted from APMA's initiative to appoint additional staff with banking experience to review and approve matching grant financing proposals. As a result of its increased capacity APMA was also selected for managing youth enterprises' financing as a part of DANIDA collaboration with the AMMAR programme.

151. Credit guarantee mechanisms have sometimes been used to mobilise commercial financing for particular sectors. There is an appetite for such a mechanism within the government and

development partners such as EBRD which has successfully used such a mechanisms in the past for SME financing with less than 10% draw on the guarantee funds by the partnering commercial banks.

152. It is possible to develop VC financing products based on profitable formal linkages between aggregators and smallholders' producers. In one example, the TBC bank started discussion with Sante, the largest dairy aggregator in the country, to finance farm level dairy production investments based on marketing linkages between these producers and a Sante operated MCC in Samagrello. However, the discussions did not result in a concrete collaboration due to operational challenges encountered by the MCC because of the seasonal supply of raw milk. In another example, a dairy producers' cooperative is in discussion with some commercial banks to extend loans to cooperative members for improving their dairy production facilities against guarantee provided by the cooperative based on its assets and net worth. Thus, alternative sources of financing is possible based on the development of strong VC linkages between the target households and the aggregators.

153. *Natural resources/pasture management:* Lessons from other donors' interventions in the area of livestock development indicate that in the absence of appropriate legislation, which regulates the land use rights of private farmers, the prospects for improvement of communally used natural pastures are limited. However, pasture management is particularly important in the hilly parts of the highland steppe zone and in the upland steppe zone, where the areas are often heavily grazed resulting in open grass vegetation. Pasture management pilots can be initiated, which will inform the GoG and key stakeholders on how to develop a national pasture management strategy.

154. *Targeting, poverty and gender equality:* Experiences of IFAD funded projects in Georgia show that there have been some weaknesses in applying specific gender and targeting approaches. The IFAD approach in Georgia has been a more operational approach, looking at the VC in a holistic manner and recognising that enterprises/farms may be of any size, suggesting that employment creation (in capable farms and enterprises) is the most feasible approach to rural poverty reduction.

155. **Lessons learned from similar development projects:** Experience from similar livestock development projects in Georgia shows that productivity can be boosted through adoption of innovations and capacity development of farmers. Smallholder livestock producers would be able to more than double their profits through improved approach to feeding, reproduction and animal health.

156. SDC-funded MOLI and ALCP programmes have followed a Making Markets work for the Poor (M4P) approach where the key service providers to smallholders have been strengthened. Some key lessons learned from the SDC-funded projects include: (i) provision of veterinary services and livestock inputs have resulted in better feed for livestock, and have improved farm hygiene and health of their animals; (ii) creation of milk processing and collecting businesses have resulted in farmers seeing the benefits of selling liquid milk instead of cheese; (iii) farmers with access to market for raw milk, invest more in production factors and intensify their production. UNDP has piloted co-management of pastures with some success. A 2013 Law on Agricultural Cooperatives provides a legal framework for developing FOs. Although the experience of FO mechanism has not been easily accepted by farmers there are some limited successes in supporting agricultural cooperatives: Oxfam, for example, has worked with production, processing and mechanization cooperatives in the hazelnut, horticulture and greenhouse sectors.

157. **Adherence to IFAD Policies and Strategies:** The DIMMA programme is in line with IFAD Strategic Framework 2016-2025, NEN COSOP (2004), CSN (2014) and COSOP (2017) for Georgia and relevant IFAD policies (SECAP). The programme activities, implementation arrangements and M&E system have been designed in compliance with IFAD Targeting Policy, IFAD policy on gender equality and women's empowerment and in line with the approaches outlined in the Framework for Gender Mainstreaming in IFAD investment operations. The programme is designed to be consistent with IFAD's Private Sector Development and Partnership Strategy, its Rural Finance Policy and the associated Decision Tools for Rural Finance.

158. **The SECAP:** DiMMA incorporates IFAD's assessment that climate-related risks, and potential opportunities, can be addressed more systematically within its projects activities and policy advice.

Georgia's climate change adaptation strategy is structured around the National Adaptation Plan (NAP) to Climate Change produced by Ministry of Environment and Natural Resources Protection in collaboration with other agencies including IFAD and the Third National Communication to UNFCCC. Nonetheless, the country is still facing a major deficit in terms of climate change adaptation.

159. DiMMA has a clear adaptation strategy that include both investments and training/capacity building practices. It supports resilience to climate change at household level, improve soil and water management, securing higher fodder/pasture crop yields and mitigate the impact of extreme weather events by: i) creating entrepreneurial and employment opportunities and addressing constraints faced by the marginalized, including women, youth and poor landless; and ii) building capacities of small holder farmers, training private market actors, and ensuring technical assistance to VC actors. The programme will support demonstrations of: i) AI and crossbreeding; ii) fodder conservation pilots; iii) pasture management pilots; iv) manure composting pilots; v) energy saving and climate smart pilots; and vi) agro-tourism and home-based processing units. It will also support production and marketing of premium cottage cheese produced in mountainous areas. Furthermore, it will improve capacities of veterinary services to cope with the possible emergence of exotic diseases from tropical areas.

160. **Environmental and social category (more details in the SECAP note, appendix 13).** The programme aims at increasing natural resource management and reduce overexploitation of land, pasture and resources. It will strictly follow the existing environmental laws and regulations applicable in the country and represents a NRM oriented approach to using natural capital available in Georgia. It will enhance sustainable and resilient business opportunities of rural poor through climate-smart natural resource management promoting the territory and its environmental integrity as main driver of local economy. The programme is considered to be Category B. Overall, the programme is not expected to have any significant adverse environmental or social implications and though there may be some environmental risks associated with construction of agricultural infrastructure or rural roads, these will have to be in accordance with the new Environmental Assessment Code (June 1, 2017), which enters into effect from January 2018. Thus, the programme will have to comply with the new and improved procedures for environmental impact, Environmental Impact Assessment (EIA) report. The Ministry of Environmental Protection and Agriculture shall provide guidance on the content and preparation of this document.

161. **Climate risk category (more details are also available in the SECAP note).** Climate change and variability historical trends and future scenarios for Georgia have been analysed in detail during the design presented in appendix 13. The programme's climate risk classification is **Moderate**. Based on assessments undertaken during preparation of the concept note and detailed design, the programme is expected to be moderately sensitive to climate risks, mainly due to the exposure of Georgia's agriculture sector to expected changes in temperature and rainfall. Main possible impacts have been detected on natural resources (forest, pasture, water bodies, others) as well as on rural infrastructures such as roads and water points and therefore on livelihoods of smallholders and rural people. A key aim of the programme will be to reduce the vulnerability of the rural poor to those risks and programme's funds are allocated to ensure climate adaptation and resilience of both infrastructures and livelihood strategies. Furthermore, Green Climate Fund and Global Environment Facility financing is under consideration and may reinforce programme adaptation activities.

## Programme implementation

### A. Approach

162. *Stakeholder mapping study:* During the first year immediately after programme effectiveness, a CBSP (consultancy firm) will be contracted to prepare a study that will include a preliminary dairy VC mapping and stakeholder assessment exercise. The study will identify the different dairy VC stakeholders (e.g. producers, service providers, aggregators, municipalities, NGOs, etc.) in the programme region. It will propose the locations of the 6 clusters for the innovation phase and potential location of 9 more clusters for adoption phase based on the extent of presence of the stakeholders

and their readiness to participate in the programme. This will be followed by the formation of stakeholder platforms (refer SC 2.1) and development of 4-Ps based partnerships between the VC actors which will be co-financed by DiMMA.

## B. Institutional and organisational framework

163. **Overall responsibility: The Ministry of Finance (MOF)** will be the official Representative of Georgia as the Borrower/ Recipient. In this role MOF will be responsible for: (i) providing inter-agency coordination when required; (ii) fulfilling the government fiduciary oversight and management responsibilities; and (iii) providing sufficient counterpart contribution in a timely manner to finance the Programme activities (where agreed).

164. **Lead agency:** The Ministry of Environmental Protection and Agriculture (MEPA) will be the lead executing agency through the Programme Management Unit (PMU) established in the MEPA Department of External Relations which manages IFAD and World Bank funded projects. Other Government of Georgia (GoG) agencies with responsibilities for administrative and technical aspects of the programme will include APMA and ACDA.

### Programme steering committee

**Implementation structure:** DiMMA's implementation structure will comprise the PMU in Tbilisi, a Regional Office (RO) in Kutaisi and 3 Local Coordination Offices (LCO), one in each region. The implementation structure of the programme is presented below:

**Table 4: Implementation structure of the programme**

Level	Technical			Supported by
PMU	Programme Director			Finance Manager; Accountant; Procurement specialist; Knowledge management, gender and targeting specialist; Infrastructure engineer
RO	Agribusiness specialist Livestock specialist Climate adaptation specialist			CBSPs
LCO	Field coordinator	Field coordinator	Field coordinator	CBSPs and field facilitators

165. **Programme Management Unit (PMU):** The PMU will be responsible for day-to-day management and implementation of programme activities, covering overall management/supervision, fiduciary aspects, procurement, monitoring and evaluation. It will be headed by the Programme Director who will be assisted by 1 Finance Manager; 1 Accountant; 1 Procurement specialist; 1 Knowledge management, gender and targeting specialist; and 1 Infrastructure engineer.

166. **Regional Office (RO):** The RO will be located in Kutaisi and will operate from rented premises. The RO will be responsible for technical backstopping, implementation support and supervision of the activities of the LCOs in each region. It will also supervise the activities of the CBSPs and ensure the technical excellence of the inputs provided by the CBSPs. The RO will be headed by an agribusiness specialist as the Regional coordinator. The Regional coordinator will be assisted by a regional livestock specialist and a climate adaptation specialist. The RO will contract the services of CBSPs based on need.

167. **Local coordination offices (LCO):** Three LCOs (one in each region) will support the implementation of DiMMA activities at the local level. The LCOs will work closely with municipal staff, both administrative and technical, in step with Georgia's unfolding decentralisation process – it will especially emphasise the downward accountability of public service providers, and of private service providers contracted by the programme. Wherever possible, the LCO will be housed in the municipality or other government premises. Where required DiMMA they will operate from rented premises and will be resourced by DiMMA. Each LCO will be headed by a Field coordinator who will be supported by a group of field facilitators who will be contracted based on need.

168. **Component wise roles and responsibilities:** The component wise roles and responsibilities of the programme staff are presented below:

Components	Activity	Lead responsibility	Field delivery by
<b>Component 1: Dairy VC development</b>			
<b>Sub-component 1.1:</b> Demand driven demonstrations of dairy production & business models	- Partnership between progressive dairy producers and aggregators	- Agribusiness Specialist	- Field coordinators supported by CBSPs and field facilitators
	- Demonstration and dissemination of technologies and business models	- Livestock Specialist	- Field coordinators supported by CBSPs and field facilitators
	- Capacity building of VC Actors	- Agribusiness Specialist & livestock specialist	- Field facilitators for farmers; CBSPs for VC enterprises
<b>Sub-component 1.2:</b> Strengthening stakeholder linkages to the dairy VCs	- Selection of innovative technology and business model adopters	- Agribusiness Specialist & livestock specialist	- Field facilitators for farmers; CBSPs for VC enterprises
	- Seed capital financing	- Agribusiness Specialist, livestock specialist & APMA	- Field coordinators supported by CBSPs and field facilitators
	- Implementation support to new VC actors	- Agribusiness Specialist	- Field coordinators supported by CBSPs and field facilitators
	- Pasture development	- Climate adaptation specialist and APMA	- Field coordinators
	- Marketing infrastructure development	- Agribusiness Specialist	- Field coordinators supported by CBSPs and field facilitators
<b>Component 2: Institutional and organisational development</b>			
<b>Sub-component 2.1:</b> Community mobilisation and stakeholder organisation	- Community mobilisation and stakeholder organisation	- Field coordinators	- Field facilitators/Consultants
	- Development of local dairy initiative clusters and platforms	- Agribusiness Specialist & Field coordinators	- CBSPs and Field facilitators
	- Development of FOs	- Agribusiness Specialist, climate specialist & Field coordinators	- CBSPs and Field facilitators
<b>Sub-component 2.2:</b> Policy dialogue	- Support to national dairy policy dialogue platform	- Programme Director	- Consultants
	- Studies to provide evidences to guide policy dialogue	- Programme Director	- Consultants

169. **Beneficiary Selection:** DiMMA's VC partner selection process will involve pre-identification of potential beneficiaries by field facilitators based on the findings of the stakeholder mapping exercise and recommendations of the stakeholder platform; The PMU/implementation support partner will announce call for proposals inviting expressions of interest from interested actors to partner with the programme; the selection committee will shortlist the applications received and the shortlisted candidates will receive BP development support from the CBSPs and field facilitators. The BPs will be reviewed by the selection committee leading to the selection of the final beneficiaries.

170. **Selection committee:** The PMU will constitute a selection committee comprising representatives of the PMU, APMA, financial institutions, other development partners, the regional stakeholder platform and the implementation support partner. The committee will be to review the expressions of interest and shortlist applicants followed by the review of the BPs submitted by the shortlisted beneficiaries leading the final selection of beneficiaries.

171. **Partnership with service providers:** The PMU will hire two types of service providers, CBSPs and field facilitators, to facilitate programme implementation at different levels.

172. **CBSPs:** They can be competent individuals, consultancy firms, NGOs, government organisations and commercial Dairy enterprises reputed for providing technical and business/entrepreneurship development services. Business and entrepreneurship development services will include facilitation of BP development; facilitating negotiations, business agreements and partnerships between the different VC actors; supporting the linkages of VC actors to financial institutions based on the BPs prepared for the VC actors; enabling marketing linkages of new established businesses; theoretical and practical training on the different business elements; and conducting ToTs for field facilitators. Technical services will be related to training capacity building and implementation support related to the subject of dairy products production processing and marketing. When required CBSPs will be exposed to training and capacity building through international exposure trips and international technical assistance.

173. **Field facilitators:** Field facilitators will be a pool of young graduates hired in each of the regions to facilitate programme implementation in the VC clusters. The field facilitators will be

capacitated through training by CBSPs and international technical assistance were required. While the CBSPs will mainly concentrate their inputs on the processors and service providers the field facilitators will concentrate on the training capacity building and implementation support to the market vulnerable dairy producers. As and when required, the programme will hire the field facilitators from the pool of professionals trained for this purpose based on their past performance and availability.

174. **Policy development:** Policy dialogue will be initiated through the engagement of the stakeholder platforms, the FOs and the national dairy forum supported at the National level.

175. **Implementation partnership with international NGOs:** The quality of the services provided by CBSPs and the field facilitators will be critical for programme success. To ensure timely availability and technical excellence of the services delivered by these service providers, DiMMA will explore the partnership with an international NGO which will be invited to co-finance these services wherever relevant. In this regards, discussions have already been initiated with HEKS- EPER, an international Swiss-funded NGO which has been involved previously in implementing other donor projects in the livestock sector.

176. The partnership between the implementation partners and the PMU will be based on an MoU developed including but not limited to the following: (i) the partner will use its expertise to lead the CBSP and field facilitator selection process through activities such as inputs to the final ToRs; developing a list of potential candidates with proven expertise; following up and encouraging these candidates to participate in the selection process; developing assessment criteria and participating in selecting the CBSPs and field facilitators; (ii) reviewing and ensuring technical excellence of the contents of the training and technical assistance packages developed by the CBSPs; (iii) assisting the PMU in supervision and quality control of delivery of technical assistance services by the CBSPs and the field facilitators; (iv) coordinate with the PMU for developing and participating in strong monitoring and supervision of the implementation process; and (v) function as a member of the beneficiary selection committee for seed capital financing.

177. DiMMA may be co-financed by an Implementation Support NGO which would be responsible for community mobilisation and facilitation of stakeholder organisation under Component 2 as well as for prompting the development of farmer organisations. The Implementation Support NGO will be selected based on its experience and successful track record in inclusive development of the dairy VC, as well as the ability to make a significant contribution to programme financing. The NGO will provide a wide range of technical support for both components.

## **C. Planning, M&E, learning and knowledge management**

### **Planning**

178. **Annual Work Plans and Budgets (AWPB):** AWPBs and corresponding Procurement Plans will be the programme's key planning instruments. The AWPBs will be formulated by the PMU for the first two years. After that, as determined by GoG and IFAD during supervision and implementation support missions, planning responsibilities will be shifted towards local dairy initiative cluster platforms. Planning will be carried out taking into account the Project Design Report, supervision report recommendations and legal agreements, overall programme targets, procurement plans and development priorities of target households. The AWPBs will be set against the programme log frame and planned activities will have clear financial allocations on the basis of which funds release and financial control will be exercised. The AWPB presentation will follow the logical framework hierarchy of objectives by component. AWPBs will be submitted to the programme steering committee (PSC) by the PMU for review and approval, and to IFAD for clearance no later than sixty days before the beginning of the relevant programme year. The content of the AWPB will include; the annual planning process, programme strategy and focus for the year, key constraints and actions needed, implementation approach, components activities and expected targets, consolidated annual budget by financier, categories of expenditure by component/sub-component and agencies responsible for delivery of activities. In addition, it will include appendixes on the logical framework, organization

chart, 18-month procurement plan initially followed by 12-month annual plans, and a staff development plan.

179. **Start-up Workshop:** This will be conducted at the onset to present the steps underpinning the planning and annual work plan process as well as the monitoring and evaluation system. The timing of the start-up workshop should take into account the seasonal nature of the dairy VC in the DiMMA programme area. It will be used to validate: 1) the programme implementation arrangements; 2) the roles and responsibilities of the different implementation partners, including on M&E; and 3) the study on the location of the first six local dairy initiative clusters. The PMU will present and discuss the first AWPB, and organise a Q&A session with stakeholders.

### **Monitoring and evaluation**

180. The Monitoring and Evaluation (M&E) achievements and knowledge management would be the responsibility of PMU. The M&E specialist will be responsible for collection of relevant data on the activities, outputs, and outcomes and for reviewing the performance of components and sub-components on the basis of information collected from the field. These activities will facilitate compilation and dissemination of relevant knowledge about issues, experiences, and insights to all stakeholders. The logical framework would constitute the basis for results-based M&E, and include an initial list of indicators to track progress and achievements. The Programme draft M&E matrix will be prepared in a participatory manner as part of the start-up activities in line with the logical framework.

181. The will be incorporated within the M&E system along with the Annual Outcome Survey (AOS) tool which would allow for effective monitoring of the different programme indicators. The programme log frame incorporates the core indicators as part of the compliance with the new IFAD Operational Results Management System (ORMS) system. As is the case with the ongoing AMMAR project, the programme will adopt the geo-reference methodology developed in NEN to support implementation and M&E processes. As part of the M&E system, a number of studies/surveys will be conducted as follows

182. **Programme Baseline Study.** The stakeholder mapping study (discussed above) will also collect baseline data and will serve as the basis for the assessment of how efficiently the activity has been implemented and results achieved. The study will include the target group and a control group which will be essential to determine the attribution of results to programme activities.

183. **Annual Stakeholder Evaluation Workshops.** These will be held starting from year 2 of the programme and will be convened by the LCOs. The achievements and the challenges facing programme implementation will be discussed and corrective steps and responsibilities suggested.

184. **Mid-term Review:** The MTR will be carried out in year 3. It will assess operational aspects such as programme management and implementation of activities as well as the extent to which the objectives are being fulfilled and corrective actions needed for the programme to achieve impact. Depending on the achievements the programme and the resources available, the possibility of scaling up the activities to other regions will also be considered in consultation with the government.

185. **Programme completion survey (impact evaluation):** Will include the same set of questionnaires included at baseline to allow for comparison against baseline results. In addition, a panel of households will be interviewed to provide a thorough analysis of programme impact. Moreover, analysis will be done by type of beneficiary, region and gender of household head.

### **Learning and knowledge management**

186. The learning process will be part of the regular M&E activities. DiMMA will prepare and implement, a KM and innovation strategy as part of its policy dialogue intervention. The development of the KM system will consider the presence of an appropriate M and E system, evaluation and documentation system; appropriate institutional arrangements; information management and communication; and knowledge based programme support, decision making and policy dialogue. Lessons learned will be prepared and reported covering each component activities. Innovations and best practices at village level will be documented and disseminated for replication and scaling-up.

Progress reports will serve as a formal knowledge product that covers implementation activities including details about planned activities versus actual, physical and financial progress, key corrective actions taken and forecasts for next reporting period.

## **D. Financial management, procurement and governance**

### **Financial Management**

187. Since 1997, IFAD's country programme that are implemented by the MEPA in Georgia consisted of five projects, four of them are closed while AMMAR is ongoing with a completion date of June 2019. All of the projects have been implemented by the MEPA and the financial management for these projects have been rated satisfactory over the years.

188. To determine the programme specific control risks a Financial Management (FM) risk assessment of the proposed programme and its fiduciary arrangements has been conducted while shows that the programme financial management arrangements and internal control systems would satisfy IFAD's requirements in terms of fiduciary implementation arrangements through effective segregation of duties, several level of independent and cross controls in order to ensure accurate and timely financial reporting and the right use of funds. to provide accurate and timely information on the progress of programme implementation and guarantee the separation of functions through several levels of independent controls and rated the residual financial management risk as Low, after the implementation of appropriate risk mitigation measures to ensure accountability of funds.

189. Overall the FM risk is rated as Medium improving to Low after conditions for disbursement and proposed mitigation measures have been met. A Summary of actions needed to mitigate FM risks is shown in Appendix 7.2.

190. **Financial Management Organization and staffing.** The PMU will have overall responsibility for Financial Management of the Programme, with the finance team would comprise of a Senior Finance Manager, a Finance Manager and an Accountant. The senior finance manager, finance manager and the accountant would be recruited from the private sector on competitive basis, having experience of donor funded projects and with IFAD No objection of the process and the selected candidates.

191. **Budgeting.** All programme activities for all components and sub-components will be included in an Annual Work Plan and Budget (AWPB). The AWPB will be prepared in parallel and matching the budget submitted and finally approved by the Government. However, the AWPB and Procurement Plan (PP) would be submitted at least 60 days prior to the start of the next year and IFAD would provide its No Objection within 30 days of the receipt of the draft AWPB and PP.

192. The approved government budget will be incorporated in the treasury budgeting system. AWPB would be incorporated in the accounting system of the programme. The accounting system will allow for budgeting that facilitates tracking of actual against budgeted expenditures by financing category, component and sub-component to facilitate course correction for variance from budget.

193. **Disbursement arrangements and Flow of Funds.** One Designated Account (DA) will be opened for the programme at the National Bank of Georgia in EUR for IFAD Loan with an authorized allocation of approximately 9-12 months of Programme expenditure, replenishments to the DA will use the imprest modality. Withdrawal applications will be prepared by the PMU every 3 months or when 30% of the advance has been expended, whichever occurs earlier. Details of the disbursement arrangements, including the amounts advanced to the DA, will be stated in the Letter to the Borrower/ Recipient. Appendix 7.1 show the flow of funds in a diagram.

194. The flow of funds related to the activities to be implemented by an NGO (possibly HEKS-EPER) should be discussed and clarified with the Government. Ideally, flow of funds should be provided from the programme bank accounts in local currency after agreement on the plan of works between the programme's team and the NGO.



195. **Counterpart contributions.** Counterpart contribution for programme activities and foregone taxes will be made available through a single Treasury code/MOF as per approved budget allocations. All counterpart contributions (in cash and in-kind) should be documented and monitored by the different members of the programme team and reflected in the financial statements to be audited and the quarterly reporting to be submitted to IFAD. The metrics to recognize and measure the in-kind contribution of different partners should be agreed and reflected in the PIM.

196. **First disbursement conditions.** The following will be designated as precedent to disbursement of funds: (i) opening of the designated account; and (ii) IFAD no objection on a draft Programme Implementation Manual (including the financial, procurement and administrative procedures manual). In addition, the installation of an acceptable computerized accounting system will be designated as a condition for reimbursement of second WA. A start-up advance to cover the initial activities for an amount of EUR 1.5 million is acceptable to IFAD.

197. **Internal Controls and procedures manual.** All internal control mechanism will be detailed within the financial management arrangements of the PIM and will be prepared before disbursement begins. IFAD will be requested to provide a No Objection on the PIM. Finance team will undertake IFAD e-learning training on IFAD financial management and fiduciary controls.

198. **Accounting and financial reporting arrangements.** The Programme will adopt accounting procedures and policies consistent with international accounting standards (cash basis) and Government requirements. Accounts and financial reporting will be managed at the PMU, which will also be responsible for assurance that funds have been used for the purposes intended.

199. PMU would acquire and install an accounting software designed (or customizable) for programme accounting that will allow for: (i) double-entry accounting, (ii) recording and reporting of transactions by component, category, source of fund, AWPB activity, province and district; (iii) budget monitoring, (iv) automated production of SOE and withdrawal applications; (v) automated bank reconciliations; (vi) contract management and monitoring of financial commitments; and (vii) production of the required financial reports and statements. For selection of software, software used by WB and other donor projects would be evaluated in addition to internationally available software specifically developed for projects. It is important that the software is developed and supported by a well-established software company. IFAD No Objection would be required for the selection of the software to ensure compliance with IFAD requirements.

200. The PMU will prepare monthly financial reports including analyses of disbursement rates by expense category, AWPB financial execution by subcomponent (budget vs. actual for the month and cumulatively), cash position and forecast, implementing partners' financial situation, procurement plan execution and any salient administrative issues. Interim unaudited financial reports (IFR) will be submitted to IFAD within 45 days of the end of each quarter. Unaudited annual financial statements will be produced by the PMU and submitted to both IFAD and the external auditors within 2 months following each year-end.

201. **Internal audit.** The MEPA has an independent Internal Audit Department (IAD) comprising of qualified and experienced team headed by a Director and reporting to the Minister. The IAD performs Financial Audit, Compliance Audit and Impact Audit of various departments and programme of MEPA, as per its annual plan but donor funded projects have not yet been audited.

202. The programme would be subject to an annual internal audit by the IAD of MEPA. Involvement of Internal Audit Department would be ensured through stipulation in the Financing Agreement. TORs of internal audit would be agreed between PMU and IAD while IFAD's No Objection would be obtained. Internal Audit Reports would be submitted to IFAD at least on an annual basis. IAD would develop understanding of funded projects, financing agreement, PIM etc.

203. **External Audit Arrangements.** The Programme's financial statements will be audited annually by the State Audit Office (SAO) which is that Supreme Audit Institution of GOG. TORs of external audit would be agreed between PMU and IAD while IFAD's No Objection would be required.

The external auditors' scope will include the audit of transactions related to activities implemented by APMA for the programme. The appointment of external auditors would be made within 90 days of the start of the financial year in accordance with IFAD requirements, the auditor will be required to issue separate opinions on the programme financial statements, statements of expenditure and the designated account. The final audit report and management letter are required to be submitted to IFAD by the GOG at the latest six months after the end of each fiscal year.

## **Procurement**

204. IFAD undertook a comprehensive assessment of: (i) the degree of practical implementation of the Georgian public procurement framework; and (ii) the procurement capacity of the programme implementing agency [the Agricultural Development Projects and Coordination Centre at the Department of External Relations within the Ministry of Environmental Protection and Agriculture]. The current Law on State Procurement (PPL) came into force on 1 January 2006. Since the amendment of the PPL in 2010, there has been significant progress in reforming the Georgian public procurement system. As of 1 December 2010, the traditional paper-based tendering system was entirely replaced with a new e-government procurement system (Ge-GP). Achievements of the Ge-GP have been explicitly acknowledged by different international organizations and the World Bank-funded projects in Georgia are currently using Ge-GP for the procurement of civil works with an estimated contract price below US\$ 10 million, as well as for the procurement of goods below an estimated contract price of US\$ 1 million, and also for procurement of simple goods and simple works following shopping procedures for estimated contract price below US\$100,000 and US\$ 200,000 equivalent respectively. Georgian PPL provides an exemption from national rules for contracting with an international financial institution (IFI), or for procurement related to IFI financed projects.

205. The Georgian Ministry of Environmental Protection and Agriculture through its Department of External Relations (DER) will be responsible for all procurement functions under the programme. The DER staff has adequate experience to conduct procurement activities and is familiar with IFAD procurement guidelines and procedures as it has been involved in similar - completed RDPMHA, RDP and ASP, and ongoing AMMAR and ILMD (World Bank-funded programme). Existing AMMAR and ILMD management Unit and its part-time procurement consultant have gained substantial knowledge and experience during the implementation of the above projects. Nevertheless, and to avoid impediments in programme implementation, the existing PMU will need to be strengthened with a full-time experienced procurement officer who shall be assigned to exercise overall management and review of DiMMA procurement related transactions.

206. The Georgian public procurement system is assessed to be consistent with the IFAD's procurement guidelines, in particular, and with the International donor community requirements, in general. Thus, the Georgian public procurement system, including the e-procurement system, will be used to undertake the DiMMA programme-funded procurement activities. National competitive bidding and shopping processes for the procurement of works and goods will be carried out using Georgian E-Government Procurement System since DiMMA will apply the same procurement standards and processes currently in use by the World Bank for ILMD programme. The IFAD policy on preventing fraud and corruption in its activities and operations of June 2017 will be applied.

207. Given the size and nature of some DiMMA activities, (such as improvement of pasture access, infrastructure, communities or informal groups may be brought together to act as implementing agencies to undertake programme procurement. The extent to which community would be involved in procurement will be identified in the programme implementation manual (PIM), and clearly defined in the approved procurement plan.

## **Governance**

208. The country risk is rated as Medium. Transparency International's Corruption Perception Index ranked Georgia 44 of 176 countries in 2016 (up from 49 in 2013) with a score of 57. Georgia has embarked on a series of in-depth governance reforms concerning public sector management, access to information and the fight against corruption. The Legal framework governing public

procurement was further amended, Electronic Government Procurement (E-GP) introduced in 2010, and linked to the Treasury's information system thus providing for full information sharing. Through the introduction of electronic procurement platform, the Georgian procurement system has become considerably more transparent and non-discriminatory, encouraging free and fair competition and minimizing the risk of corruption.

209. The WB's Public Financial Performance Benchmarking Study 2013 for Georgia shows major transformation in the public sector management as a result of the reform initiatives. The Public Finance Management Reform Strategy (2014-17) outlines further reforms strategies which are expected to improve the public finance management.

210. While the enforcement of good governance is the primary responsibility of the Government, all stakeholders of the programme should be aware that IFAD applies a zero tolerance policy towards fraudulent, corrupt, collusive or coercive actions in projects financed through its loans and grants. The dissemination of IFAD's anti-corruption policy<sup>5</sup> amongst programme staff and stakeholders is expected to reinforce good practices.

## **E. Supervision**

211. Supervision will be by IFAD (under its direct Supervision framework and guidelines), with a Supervision mission mobilized at least once per year. Additional implementation support from IFAD on specific identified issues will be mobilized if considered necessary by GOG and IFAD or recommended by the Supervision mission. The composition of the Supervision missions would be based on an annual supervision plan. The supervision plan would highlight, in addition to the routine supervision tasks (fiduciary, compliance and programme implementation), the main thematic or performance areas that require strengthening and would imply deployment of additional inputs for capacity building, in-depth analytical studies or review of existing policies. Within approximately the first six months of programme effectiveness, IFAD will mobilize an implementation support mission, to support the PMU in programme start-up and resolve any immediate issues that have emerged.

212. During the first two years of the programme, the Supervision teams, together with GOG and the programme team, will be specifically tasked to review and refine (if necessary) the detailed processes, criteria and approaches to the following critical aspects of the programme: (i) selection of the implementation support NGO; (ii) identification of model progressive farmers serving as the center of the formal and informal training, technical assistance, and demonstrations; and (iii) DVCF sizes, % of grant, targeting, eligibility criteria, grant application and administration processes. A joint Mid Term Review (MTR) will be completed in PY3, with quantitative and qualitative data on programme performance and impacts to be collected and analysed prior to the MTR.

## **F. Risk identification and mitigation**

213. Good governance is one of Georgia's strongest points, since the country has taken a number of critical steps toward improving its anti-corruption policies in recent years. On the Transparency International 2016 Corruption Perception Index Georgia ranks as number 44 out of 176 countries, which is considered to be among the highest in post-Soviet countries (Baltic States excluded). In general management terms, the satisfactory performance of the existing Programme Management Unit (that will implement DiMMA) in managing ongoing IFAD projects provides a solid foundation for overall programme management that will help mitigate various risks. Notwithstanding, during the course of programme implementation several risk factors are anticipated. The main potential risks to programme success and mitigation strategies are summarized below.

---

<sup>5</sup> FAD's anticorruption policy is available on the IFAD website at [www.ifad.org/governance/anticorruption/index.htm](http://www.ifad.org/governance/anticorruption/index.htm). The IFAD website also provides instructions on how to report any alleged wrongdoing to the Office of Audit and Oversight (<http://www.ifad.org/governance/anticorruption/how.htm>).

**Table 5: Risks and mitigation strategies**

Risks	Mitigation measures
Low private sector interest in co-investing in the dairy VC.	The programme will use demand-driven and private co-financing approach, which will only support investments for which there is a market demand and a high probability of profitable production.
Low interest and capacity of smallholder dairy producers to adopt new production technologies and more market-oriented production systems.	The programme will pay attention to technical as well as business capacity building and training as a key factor in the upgrading process. It will support informal and formal farmers' organizations to facilitate the adoption and management of efficient livestock production systems and new technologies.
Difficulties to access finance, farmers face their own limitations as well as those of the financial system	The programme will offer access to seed capital financing and provide training and record keeping guidance which will make them bankable and result in their credit financing from financial institutions in the future. Additionally, micro-insurance pilot will be supported.
Low levels of enforcement of the EU food safety, hygiene and animal welfare regulations from the side of the Georgian government, which would reduce key drivers of demand for VC upgrading.	The GoG is committed to staged but full enforcement of EU-level regulations as part of their commitment to the DCFTA which is very important to Georgia's economic development. The DiMMA programme will facilitate the transition period to the new food safety regulations by improving their understanding of the regulatory regime and by training them on compliance measures.
The current policy and regulatory environment for pasture does not encourage the sustainable management of collective pasture, leading to degradation of this resource.	The programme will pilot small community-driven pasture management initiatives at local or municipality level, as a practical contribution to the policy discussion on pasture management. The national dairy platform will address national policy issues including those related to pasture and will advance the national agenda on pasture policy.
Climatic shock: the main effect of climate change on weather patterns is the increased occurrence of extreme weather events: droughts and flooding in particular. These weather shock can have a direct impact on animals but also contribute to the emergence of diseases	The programme will introduce climate smart infrastructure and will ensure that climate adaptation measures are implemented. It will in particular ensure that breeds used in crossbreeding strategies are resilient to climate shocks (utilization of rustic breeds); Promotion of fodder conservation and of use of concentrate feeds will contribute to improving resilience to drought; Surveillance of emerging diseases will be addressed as mentioned above.

## Programme costs, financing, benefits and sustainability

### A. Programme Costs

214. DiMMA will be implemented over a 6-year period and will operate over two IFAD funding cycles. The overall programme cost for the full 6 years is estimated at EUR 46.9 million of which EUR 16 million is allocated from the first funding cycle. Additional financing from the second funding cycle is estimated at EUR 5.46 million, subject to confirmation and commitment by both IFAD and relevant GoG authorities. The financing gap may be sourced by subsequent IFAD lending cycles (according to the performance based allocation system) under financing terms to be determined and subject to internal procedures and subsequent IFAD Executive Board approval. Co-financing is expected from the Adaptation Fund, EUR 3.7 million, and I-NGOs, EUR 2.13 million<sup>6</sup>. Beneficiaries are expected to provide in cash contribution of EUR 9.96 million and the Government in-kind contribution is estimated at EUR 9.63 million. Programme investments are organized in three main components: (i) VC Development (81.2% per cent of the costs); (ii) Institutional and Organizational Development (13% of the costs); and (iii) Programme management and community mobilization (5.8% of the costs). A summary breakdown of the programme costs by components is shown in Table 6.

<sup>6</sup> To be confirmed.

**Table 6: Programme costs by component**

		Georgia Dairy Modernisation and Market Access (DiMMA) Programme Components Project Cost Summary							
		(GEL Million)				(EUR '000)			
		Local	Foreign	Total	% Foreign Exchange	% Total Base Costs	Local	Foreign	Total
<b>A. Value Chain Development</b>									
1. Innovations, demonstrations and capacity building		17	2	19	8	14	5 789	527	6 317
2. Supporting investments and strengthening stakeholders' linkages to value chain		82	13	95	14	69	27 358	4 405	31 763
<b>Subtotal</b>		99	15	114	13	83	33 147	4 933	38 080
<b>B. Institutional and Organizational Development</b>									
1. Community mobilisation and stakeholders' organisation		12	3	15	20	11	4 068	999	5 067
2. Policy dialogue		0	0	1	20	-	164	41	205
<b>Subtotal</b>		13	3	16	20	12	4 232	1 040	5 272
<b>C. Project Management (PMU)</b>									
1. Knowledge Management, Planning and M&E		0	0	1	30	-	157	67	225
2. Project coordination		6	0	7	7	5	2 094	151	2 245
<b>Subtotal</b>		7	1	7	9	5	2 251	218	2 470
<b>Total BASELINE COSTS</b>									
Physical Contingencies		119	19	137	14	100	39 630	6 191	45 821
Price Contingencies		0	1	1	70	1	89	210	299
		3	2	5	33	4	522	257	779
<b>Total PROJECT COSTS</b>		122	21	143	15	104	40 242	6 658	46 900

## B. Programme Financing

215. The total programme costs of EUR 46.9 million will be financed by the first PBAS IFAD loan of EUR 16 million and, subject to availability and agreement with the GoG, by a second PBAS IFAD loan of approximately EUR 5.46 million. A grant of EUR 3.7 million (USD 4.5 million) from the Adaptation Fund will be used to finance adaptive climate change activities, such as collective pasture management demonstrations or non-extractive livelihoods grants that will be used to enhance the adaptation of the most vulnerable people, especially youth and women. NGOs' co-financing is estimated at EUR 2.13 million, mainly contributing toward capacity building activities across the different components. Beneficiaries are also expected to provide an in cash contribution of EUR 9.96 million to the DVCF seed financing matching grants (please see appendix 4 for additional information on the beneficiaries contribution by activity). Government in-kind contribution of EUR 9.63 million, over two funding cycles, is expected in the form of exemption of taxes and duties, provision of facilities (i.e. PMU office space and furniture, including utilities and other office related costs), infrastructure/roads rehabilitation, and support to cooperatives development in the programme area. The proposed financing plan is summarized in Table 7 below.

**Table 7: Programme financing**

		Georgia Dairy Modernisation and Market Access (DiMMA) Programme Components by Financiers (EUR '000)													
		GoG		IFAD LOAN 1		Adaptation Fund		Beneficiaries in cash		IFAD LOAN 2		NGO		Total	
		Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
<b>A. Value Chain Development</b>															
1. Innovations, demonstrations and capacity building		549	8.5	3 334	51.7	1 209	18.7	732	11.4	160	2.5	465	7.2	6 449	13.8
2. Supporting investments and strengthening stakeholders' linkages to value chain		7 565	23.5	8 682	26.9	1 891	5.9	9 232	28.6	4 816	14.9	58	0.2	32 245	68.8
<b>Subtotal</b>		8 114	21.0	12 017	31.1	3 100	8.0	9 964	25.8	4 976	12.9	523	1.4	38 694	82.5
<b>B. Institutional and Organizational Development</b>															
1. Community mobilisation and stakeholders' organisation		949	17.7	2 006	37.3	474	8.8	-	-	332	6.2	1 614	30.0	5 374	11.5
2. Policy dialogue		41	18.0	77	33.7	-	-	-	-	110	48.3	-	-	228	0.5
<b>Subtotal</b>		990	17.7	2 083	37.2	474	8.5	-	-	442	7.9	1 614	28.8	5 602	11.9
<b>C. Project Management (PMU)</b>															
1. Knowledge Management, Planning and M&E		23	10.0	211	90.0	-	-	-	-	-	-	-	-	234	0.5
2. Project coordination		506	21.4	1 689	71.3	126	5.3	-	-	48	2.0	-	-	2 369	5.1
<b>Subtotal</b>		529	20.3	1 900	73.0	126	4.8	-	-	48	1.8	-	-	2 604	5.6
<b>Total PROJECT COSTS</b>		9 633	20.5	16 000	34.1	3 700	7.9	9 964	21.2	5 466	11.7	2 137	4.6	46 900	100.0

216. For detailed information on programme cost and financing, reference is made to Appendix 9, which includes a more elaborate explanation, as well as a complete set of summary and detailed costs tables in its Attachments.

## C. Summary benefits and economic analysis

217. **Programme benefits.** DiMMA will generate financial and social benefits by promoting investments and activities aimed at enhancing and/or creating linkages between targeted vulnerable households, service providers and dairy aggregator along the dairy VC. In particular, it will: (i) support the development of 75 dairy products' aggregators in the programme area creating the capacity to process 240 tons of compliant milk per day in the programme area; (ii) support the emergence of 46 farm level service providers in the programme area (to supply fodder, AI and veterinary services, machinery services, etc); (iii) support 4,220 target households to link to dairy VCs through profitable partnerships with aggregators; (iv) create 370 new jobs for youth and women in the small enterprises developed in the programme area; (v) support 250 youth to increase family income through non-extractive livelihoods; (vi) assist 76 PAUs with 1,900 members to improve 9,500 Ha of pastures; and (vii) improve the access to pastures by supporting the rehabilitation of 300 kilometres of roads.

218. In addition, it will improve farmers and FOs' capacity building; enhance access, availability and quality of pastures; support farmers to access a niche market for dairy products; enhance access to financial services and increase vulnerable households' access and adaptation to diversified and resilient rural economy.

219. **Number of beneficiaries:** DiMMA is expected to directly and indirectly benefit about 16,620 households, or 54,846 people (Average household size is 3.3. GEOSTAT). Direct households beneficiaries will be 6,740 while the indirect ones will be 9,880. Table 1 and 2 below show the number of direct and indirect beneficiaries by DiMMA's main activity or investment.

**Table 8: Direct household beneficiaries' phasing-in by main activity**

No. of households phasing in by year							
Households category	Y1	Y2	Y3	Y4	Y5	Y6	Total
Farm level service enterprises	4	8	12	12	10	0	<b>46</b>
- Aggregator enterprises <sup>1</sup>	36	60	102	94	32	0	<b>324</b>
- Market vulnerable dairy producers <sup>2</sup>	90	800	1080	1080	850	0	<b>3,900</b>
- Progressive dairy producers	40	130	50	50	50	0	<b>320</b>
- Non extractive livelihood pilots <sup>3</sup>	0	0	125	125	0	0	<b>250</b>
- PUA support <sup>4</sup>	200	200	250	500	500	250	<b>1,900</b>
<b>Total</b>	<b>370</b>	<b>1,198</b>	<b>1,619</b>	<b>1,861</b>	<b>1,442</b>	<b>250</b>	<b>6,740</b>

<sup>1</sup>Each of 29 medium size aggregator will create 8 jobs = 290. Each of 46 small scale aggregator will create 2 jobs = 230. 50% jobs for youth. 30% for women. Total jobs 324 (full time) + 46 jobs created at farm level service enterprise = 370 jobs. <sup>2</sup> 3500 from Loan+ 400 from AF; <sup>3</sup> from AF <sup>4</sup> PUA support = 76 PUA \* 50 per PUA = 3800. Of these 50% already counted as progressive and market vulnerable farmers. So additional outreach is 1900

**Table 9: Indirect households reached by investment/activity**

INDIRECT BENEFICIARIES FROM INVESTMENTS			
INVESTMENT	Number	Benef/unit	Subtotal
MCC	16	55	880
Summer camp MCC	16	10	160
Silage/hay makers	25	60	1500
AI and vet service providers	21	60	1260
Small scale processors	30	10	300
Medium scale processors	13	60	780
<b>TOTAL</b>			<b>4 880</b>
Roads			5000
	<b>Total</b>		<b>9 880</b>

220. **Summary of financial models' results:** Based on field visits, national statistics, and expected programme activities, 8 indicative financial models were identified during the programme design process to demonstrate the financial viability of the investments in different levels of the dairy VC as well as of the investment in non-extractive livelihood activities: (i) livestock model, market vulnerable dairy producers; (ii) livestock model, progressive dairy producers; (iii) milk collection centre (MCC) activity model; (iv) small scale processing model including on pasture activity model; (v) medium scale processing model; (vi) mechanization service provider at farm level for hay and silage; (vii) AI and veterinary service provider at farm level; and (viii) beekeeping model to represent non-extractive livelihoods' activities. All farm and activity models generate attractive profitability indicators,

as summarized in the tables below. Furthermore, considering that DiMMA will focus on VC activities, it is estimated that 370 new full time jobs will be created.

**Table 10: Livestock model summary**

	Net income WOP (GEL)	Net income WP (GEL)	NPV @ 10% (GEL)	B/C	IRR	Investment (GEL)	Switching value benefits	Switching value costs	Return to family labour (GEL/day)
Market vulnerable producers	5 923	9 423	9 527	1.85	22%	12 750	-46%	85%	35
Progressive dairy producers	17 846	24 084	11 814	1.66	17%	29 500	-40%	66%	59

**Table 11: Activity model summary**

	Net income WP (GEL)	NPV @ 10% (GEL)	B/C	IRR	Investment (GEL)	Switching value benefits	Switching value costs
MCC	92 960	101 241	1.03	25%	216 425	-3%	3%
Small scale processor	37 423	87 309	1.11	51%	47 850	-10%	11%
Medium scale processor	156 115	551 836	1.10	53%	321 500	-9%	10%
Mechanization (hay & silage) service	70 646	70 108	1.19	21%	223 200	-16%	19%
Veterinary and AI service	17 932	22 254	1.04	21%	60 250	-4%	4%

221. **Economic Rate of Return.** The overall economic internal rate of return (EIRR) of the programme is estimated at 18% for the base case. The net present value (NPV) of the net benefit stream, discounted at 11%, is USD 17.6 million. See below the economic analysis summary table.

**Table 12: Economic analysis summary**

	Total Benefits EUR '000	Total Costs EUR '000	Cash flow EUR '000
Y1	-1137	2150	-3288
Y2	-5146	5360	-10505
Y3	-5820	3202	-9023
Y4	-4693	2713	-7407
Y5	-1190	1507	-2697
Y6	5976	836	5140
Y7	8263	20	8243
Y8	9980	20	9960
Y9	10964	20	10944
Y10	10938	20	10918
Y11	11131	20	11111
Y12	11109	20	11089
Y13	11133	20	11113
Y14	11245	20	11225
Y15	11281	20	11261
Y16	11281	20	11261
Y17	11281	20	11261
Y18	11281	20	11261
Y19	11281	20	11261
Y20	11281	20	11261
<b>NPV@11%</b>	<b>17 656</b>		
<b>EIRR</b>	<b>18%</b>		

222. **Sensitivity Analysis.** In order to test the robustness of the above results, a sensitivity analysis has been carried out; the outcomes of which are presented in table 10. The sensitivity analysis investigates the effect of fluctuations in programme costs, programme benefits, and delays in implementation on the NPV and ERR. It shows the economic impacts that a decrease in programme benefits – up to -50% – will have on the programme viability. Similarly, it shows how the economic viability of the programme will be affected by an increase of up to 50% in programme costs; and by a one to three-year delay in programme implementation. The analysis confirms that the economic viability of the programme remains attractive as a positive NPV and ERR above 11% are preserved in each case analysed.

**Table 13: Sensitivity analysis**

	Assumptions	Related Risk	NPV USD	EIRR
<b>Programme base case</b>			17 655 733	18%
<b>Decrease in programme benefits</b>	-20%	Adoption rate decreases. AF funds do not materialize. Socio-political unexpected problems.	11 760 607	16.7%
	-30%	Market/price fluctuations. Delay in the hubs formation.	2 917 920	12.9%
	-50%	Market/price fluctuations (changes in market demands). Procurement risks. Socio-political unexpected problems.	8 813 045	15.7%
<b>Increase in programme Costs</b>	20%	Market/price fluctuations (changes in market demands). Procurement risks. Socio-political unexpected problems.	15 291 754	17.0%
	30%	Market/price fluctuations (changes in market demands). Procurement risks. Socio-political unexpected problems.	14 109 765	16.4%
	50%	Market/price fluctuations (changes in market demands). Procurement risks. Socio-political unexpected problems.	11 745 786	15.3%
<b>Delays in programme implementation</b>	1 year	Delays in having the Project approved by all parties and financiers. Socio-political unexpected problems. Any other unforeseeable event.	12 087 495	16.5%
	3 years	Delays in having the Project approved by all parties and financiers. Socio-political unexpected problems. Any other unforeseeable event.	4 930 179	13.6%

223. For detailed information on economic and financial analysis, reference is made to Appendix 10, which includes a more elaborate explanation on how the analysis has been carried out, including all assumptions considered.

## D. Sustainability

224. Sustainability is central to DiMMA and will be achieved in multiple ways: (i) Market sustainability - By strengthening the suppliers of services/inputs to smallholders, and processors and other buyers of raw milk/dairy products from smallholders, DiMMA will create a direct financial interest in sustainable smallholder dairy farmer upgrading. Second, by developing a cadre of advanced progressive smallholder farmers, that will serve as a stable anchor for dairy VC actors to profitably engage with all smallholders; (ii) Economic sustainability: Through the selective use of limited partial seed capital financing intended to trigger "first mover" investments and innovations in the dairy VC serving smallholders, and by building the capacity of financial institutions to develop appropriately structured and priced financial services for the dairy VC including smallholders, DiMMA will provide a direct financial interest in banks and MFI to provide the investment capital for dairy VC upgrading; (iii) Technical sustainability - through investment in a limited number of best-practices pasture access road and rehabilitation, DiMMA will set the standards for a comprehensive GoG program of pasture rehabilitation and upgrading; and (iv) Institutional sustainability – Through the experiences gained from the establishment of PUAs and the development of PMAs, the MEPA specifically and the GoG in general will develop the expertise to develop a comprehensive pasture policy with effective implementation institutions and mechanisms.

225. **Scaling up strategy**: The scaling up approach builds on previous in-country engagement and lessons derived from similar interventions in the livestock sector sponsored by other donors. All the pre-requisites for successful scaling up exist: i) IFAD is considered a trusted partner and is called upon by government to pioneer VC development to test innovative technologies and new approaches enabling effective policy engagement; ii) the priority to the agricultural sector is evidenced by the unprecedented allocation of financial resources; and iii) revisions to the Pasture Law and related policies for the Dairy Sector are underway. It is expected that VC champions will emerge increasing the likelihood for leading and sustaining the investments beyond the programme. The livestock development models that will emerge during the course of programme implementation will create the necessary base for the government to establish the legal and organizational ground to scale the results of the programme with the support of the private sector. Thus, the complementary efforts with other actors including development partners (EBRD, EU, USAID, SDC, FAO, etc.) in the livestock sector is expected to create fertile grounds and pathways for future scaling up. Based on the performance of the programme at mid-term a concrete scaling up strategy will be developed.



## Appendix 1: Country and rural context background

1. The Republic of Georgia, with a total area of 69,700 km<sup>2</sup>, is situated in the South Caucasus. The country is surrounded to the east by the Black Sea, to the north by Russia, to the west by Azerbaijan and to the south by Armenia and Turkey. Its complex geology and climate determine the variety of Georgia's landscapes: humid subtropical coastline, lowlands and wetlands, plains, semi-deserts, highlands, and mountains covered by forests and glaciers. Mountains cover a significant part of the country, with 54% of the territory at an altitude over 1,000 m above sea level. The country has two quite distinct climate zones: (i) on the West coast, along the Black Sea, the climate is humid and subtropical, with average annual temperature of 14°C to 15° C and extremes from -15°C to 45°C; and (ii) in the East is mixed with plains in eastern Georgia having a dry subtropical climate, while mountain areas have an alpine climate. The average annual temperature is 11°C to 13°C in the plains, and 2°C to 7°C in the mountains, with a minimum of -25°C and -36°C, respectively. Annual precipitation is 400 to 600 mm in the plains, and 800 to 1,200 mm in the mountains.
2. Georgia has a population of about 3.7 million, of which 1.7 million live in rural areas (46.2%). Georgia has experienced a slow but steady loss of population due primarily to economic outmigration (a drop of .5% annually), and the rural population is dropping at over twice the rate of urban population. Regions where high external migration has taken place, such as Racha, are significantly less able to engage in agricultural production. However, as agriculture as increasingly seen as a viable livelihood opportunity, these external migrants can bring back valuable skills, contacts, and capital to invest in the agricultural sector.
3. **Poverty:** Georgia was classified by the World Bank as lower middle-income country with GNI per capita US\$3,810 in 2017. Poverty reached its highest level in country's history of 46.7 percent in 2010 (using international poverty line of US\$2.50/day, 2005 PPP), then decreased to 36.2 percent in 2013, and further to 32 percent in 2016 (2011 PPP). Poverty is more spread in rural areas, where every second household can be considered poor along the US\$2.50/day international poverty line. Although poverty level varies by regions, a more profound difference is within the regions themselves, between urban and rural, mountainous, remote and near towns, industrial and service oriented and more agrarian settlements.
4. Years of economic crisis and large-scale forced migration of native population from the territories of Abkhazia and former Soviet Ossetia due to military conflicts caused the impoverishment of a large section of the Georgian population. Poverty reduction with respect to economic growth is highly elastic. Since 2010, greater social and political stability, along with the resumption of economic growth, have brought about a significant reduction in poverty. However, not nearly enough. In the Georgia context, poverty is mostly linked to employment status, ownership of productive assets and labor markets. Those who are unable to work (the inactive, elderly or disabled) or do not have work (the unemployed) are much more likely to be *chronically* poor. Inequality, however, has positively changed; the estimated Gini coefficient dropped from 41.3 in 2010 to 38.5 in 2016 (World Bank).
5. **Rural Poverty:** There are around 550,000 rural households with an average of 3.75 people per household. (*GeoStat, 2014*). The inadequacy or lack of basic and productive infrastructure, particularly irrigation, limited off-farm opportunities, critical gaps in VCs, availability of inputs and services, reduced human and social capital, and rural-urban migration especially of youth, has hindered the development of the agricultural sector. The land privatization has resulted in smallholdings (approximately 75% of households ended up with less than 1ha of land). Land fragmentation, and neglect of the agricultural sector by the GoG until recently, has led to the development of subsistence farming and overall decline in agriculture as a profitable business.
6. Social transfers were major drivers of poverty reduction till 2013, with growing significance of agricultural products sale and labour wages. The Targeted Social Assistance (TSA) programme was a key vehicle for poverty reduction till 2013, accounting for 50 percent of the decline in the income-based poverty observed between 2006 and 2012, and 80 percent of the decline observed between 2010 and 2012 (World Bank). Rural poverty is only associated with the rural growth and growth in

agricultural sector, and was not influenced the urban growth. In addition to social benefits, wages, which have increased 1.8 times, sales of agricultural products, which increased 1.6 times, and income from self-employment, which increased 1.5 times during last five years are becoming the major drivers of poverty reduction (Table 1).

7. Agricultural accounts for 45 percent of rural household income<sup>7</sup>, a further 28 percent coming from social payments and pensions and only 27 percent from salaried work. The structure of the rural economy and demographics suggest that farming is likely to remain the dominant source of employment and income for the majority of rural citizens in the medium term.

**Table 1. Distribution of Average Monthly Incomes per Household (GEL)**

Sources of income	2011	2012	2013	2014	2015	2016	Trend
<b>Income, total</b>	<b>605.4</b>	<b>673.8</b>	<b>774.1</b>	<b>861.6</b>	<b>899.8</b>	<b>924.9</b>	
Wages	214.3	247.3	297.0	325.5	382.9	391.3	
From self-employment	54.7	66.7	72.7	75.8	81.2	80.6	
From selling agricultural production	47.1	48.0	50.2	70.5	79.7	75.0	
Property income (leasing, interest on deposit etc.)	5.5	4.3	7.5	9.1	9.0	10.0	
Pensions, scholarships, assistances	87.0	96.2	124.5	151.1	149.5	158.7	
Remittances from abroad	29.0	28.7	34.8	36.0	28.6	29.6	
Money received as gift	74.3	91.9	102.7	103.7	85.3	95.8	
Non-cash income	93.4	90.8	84.6	89.9	83.6	84.0	
<b>Other cash inflows</b>	<b>100.6</b>	<b>114.6</b>	<b>113.2</b>	<b>122.3</b>	<b>122.5</b>	<b>117.3</b>	
Property disposal	16.0	21.0	7.9	9.1	8.0	8.0	
Borrowing and saving	84.5	93.6	105.2	113.2	114.5	109.3	
<b>Cash and non-cash inflows, total</b>	<b>705.9</b>	<b>788.4</b>	<b>887.2</b>	<b>983.9</b>	<b>1022.3</b>	<b>1042.2</b>	

Source: Geostat, 2017

8. **Food Security and nutrition.** The primary food security and nutrition issue is the affordability of food, with various data suggesting that an average household in Georgia spends more than half, and poor households more than 56 percent of the income on purchasing food. Hunger does not present significant problem in Georgia, with stunting prevalence in country 11.3 percent, wasting at 1.6 percent in 2015 (UNICEF, WHO and WB). Of children less than five years, underweight prevalence was 1.2 percent, wasting 1.6 percent, and stunting 11 percent. Overall, food consumption is generally sufficient in calories with average dietary supply adequacy at 116% (2014-2016), and an average protein intake of 75 g/day. However, food consumption is characterized by low to medium nutritional diversity leading to worrisome levels of the obesity among adult population and children, with adult and child obesity prevalence at 20 percent, and non-pregnant women at 42 percent (2015, UNICEF, WHO and WB).

9. **Youth.** About 40 percent of population in Georgia are children and young people up to 29 years old, and every fifth Georgian is 15-29 years old (Population census, 2014). More than 40 percent of 15-29 year old young people live in rural areas, and experience many challenges, especially lack of employment opportunities. At age 29, 81.3 percent of males are economically active, against 61.7 percent of females. At the same time, almost 30 percent of 15-29 year old young people were unemployed in 2014<sup>8</sup>, with significantly more women being out of labour market than men. Youth unemployment can be explained by low motivation to practice farming, and a desire to have salaried jobs which are mainly offered in larger cities. That said, a significant group of young people continues to work in agriculture and face problems with shortage of knowledge and skills, lack of resources, and limited access to finance due to a lack of credit history and insufficient collateral.

10. **Gender equality.** About third of the households in Georgia are led by women, which are more prone to poverty than men headed households. Almost two-thirds of employed women are self-

<sup>7</sup> This includes 35% in-kind and 10% sales.

<sup>8</sup> Frank Eelens, Young People in Georgi: An overview based on the 2014 General Population Census Data, 2017

employed and about 50 percent of all employed women work in agriculture. On average, women engage in agricultural work 80 days more than men do, and their involvement is mostly as unpaid labour. Although the average difference in monthly remuneration between men and women has decreased from 2012, it is still high, making female remuneration about 44 percent lower than male (Geostat, 2016). The gender difference is smaller in agriculture, where average female remuneration is about 20 percent lower than of men.

11. Georgian legislation does not discriminate against women, and recognizes equal rights of men and women. A Gender Equality Law adopted in 2010, a Non-discrimination Law adopted in 2014, and the Gender Equality Strategy for 2014-2016 all aim to ensure women's security, equality in the labour market and the strengthening of women's political participation. Georgia ratified the Convention on the Elimination of All forms of Discrimination Against Women (CEDAW) in 1994, and the Optional Protocol to CEDAW in 2002. The country is a member of the Council of Europe, and ratified the European Convention on Human Rights in 1999. However, in practice, women still experience inequality. They are poorly represented in the political structures, constituting only 11 percent of the members of Parliament and 16 percent of ministers in 2015. The share of women judges, legislators, senior officials and top managers in Georgia was about 30 percent in 2015. Representation of women in the local level councils is even lower.

12. Tradition, customary law and religious law still shape attitudes and behaviour towards women in Georgia. Women have little involvement in economic decision-making within the family and do not have the same rights and responsibilities as men. Their major challenges, especially in rural areas relate to high domestic workload, lack of childcare support services. Gender focus and mainstreaming are still important for development projects in Georgia. Entrepreneurship can be an important option for women to improve their livelihoods. Their obstacles include lack of appropriate skills, information, and familiarity with the business environment; low self-confidence and lack of networks; aversion to risk; and inexperience in running a business; and limited access to finance due to a lack of collateral and credit history.

13. Livestock is an important sector for women, with high engagement especially in milking, but also processing milk into cheese and other products, and local marketing. Animal care is also important, especially when men are in seasonal or long-term migration. Women especially value dairy cows as they can help ensure family's nutrition and food security.

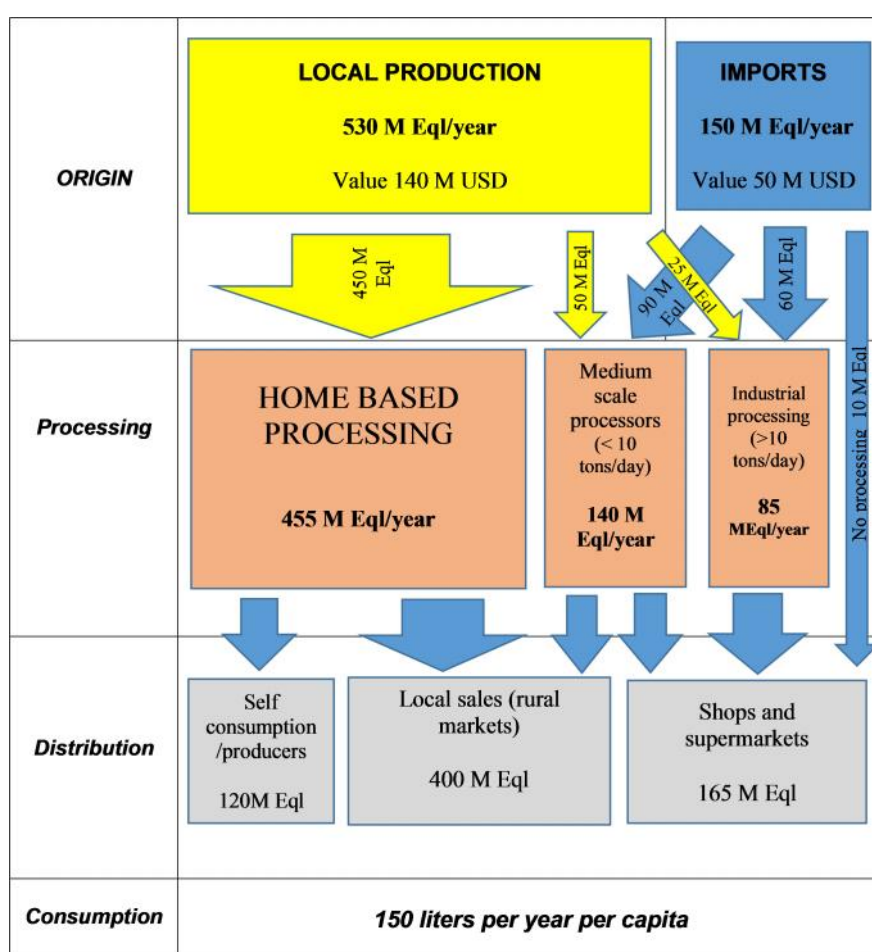
14. **Agricultural Sector:** After independence in 1991 and the ensuing economic chaos, many people returned to the rural areas and engaged in agriculture as a survival strategy. This 'flight to the rural areas' was gradually consolidated through a privatisation programme where the large collective farms were parceled out to individual households. Since then Georgian agriculture, once prized in the Soviet Union for quality and volume, became characterised by low-input/low output, subsistence-oriented farming.

15. As a consequence, between 1990 and 2011 the total area planted declined by 43 percent and average production per hectare diminished proportionately as an increasing share of agricultural land was left unused. At its peak under the Soviet Union, the irrigated area reached 386,000ha (1988) which declined to approximately 62,000ha by 2013 (MEPA). Following independence, the government implemented wide ranging and successful reforms to tackle corruption and improve the business environment and invested heavily in public infrastructure (although not in irrigation or other agricultural infrastructure). Since 2010, agriculture has begun to reverse its long term decline after 15 consecutive years of neglect (as % of GDP and in GEL output). By 2016 the agriculture sector's output had grown by 19% over 2010 levels in real terms, although less than services at 28%, and far less than manufacturing sector at 41% (World Bank 2018). The state budget for agriculture increased by over 350% since 2010 and was 3.8% of the state budget in 2018, up from 1.3% in 2010. (MOF, 2014) Increased allocations to agriculture suggesting a growing commitment by the GoG to the economic and social importance of the agricultural sector.

## Background of the dairy sector

16. **Description of VC:** the dairy VC in Georgia is transforming rapidly, because of changes in consumers habits and expectations, but also because of the progressive enforcement of new food safety regulations (see para 13 below). Georgia is traditionally a big consumer of dairy products: with an average of 150 kg per capita per year<sup>9</sup>, it reaches the level of many EU countries. The total costs of imports of dairy products reached 50M USD in 2016<sup>10</sup> (150 M ltrs<sup>11,12</sup>), when the value of local milk produced in the country is estimated at 140M USD (530M ltrs<sup>13</sup>). As of today, most of the local milk is transformed at home, by the farmers themselves (around 600 M ltrs). A very limited percentage of the locally produced milk (75 M ltrs) is processed in formal processing units, and industrial processors mostly use milk powder. In between, medium scale processors focus on cheese production which requires local milk. Figure 1 below represents the main flows of dairy products by sub-VC. The main three sub-VCs will be described in the next paragraphs.

**Figure 1: Quantitative chart of the Georgian VC (quantities in Eql, values in GEL)**



17. **Traditional cheese on farm transformation:** The share of local milk production transformed into cheese at home represents between 80 and 85 % of the local production (around 455 M litres per year). Milk is transformed into Imeruli, which is a cheese base (lactic curdling process) that can either

<sup>9</sup> Source FAOSTAT 2014

<sup>10</sup> Source GEOSTAT 2017

<sup>11</sup> All milk quantities in this paragraph and in figure 1 are indicated in litres of equivalent liquid milk (Eql). This allows comparing quantities of milk under different forms (liquid, powder).

<sup>12</sup> Source GEOSTAT 2017

<sup>13</sup> Source GEOSTAT 2017

be consumed as such or used to make Sulguni (a soft cooked cheese). In the traditional process, the milk is not pasteurized for making Imeruli (which leads to a food safety risk) but the heating process for making sulguni should in theory<sup>14</sup> eliminate the risk of Brucellosis. Sulguni is sometimes smoked, braided, or matured. The whey can be cooked to produce a kind of ricotta called Naduri. A substantial part of the home based processed cheese is consumed at home (around one fourth, 120 M Eql per year). The rest is usually sold by producers to cheese traders, who collect the cheese from farms and sell it on rural markets. These traders and vendors are usually women, and they are often producers themselves.

18. **Medium scale processing with local milk collection:** medium scale processors using local milk usually process between 2 and 10 tons of milk per day, but this varies very much along the year, because of seasonality of production, and winter production is usually 30 to 60 % lower than summer production. This channel represents less than 7 % of the total VC (50 M Eql per year), but it is growing fast. These processors mostly produce cheese (Sulguni, Imeruli), and sometimes traditional yogurt (Matzoni) that they sell within the region, either on rural markets, or in shops/supermarkets. Some of them, usually the biggest, may sell to shops and supermarkets in Tbilisi. Most of them have modern facilities that are or can easily become compliant with the new food safety regulations. They usually collect local milk from farmers within a radius of 30-50 km. In summer, some of them extend their collection catchment to summer pasture and set collection points (with or without refrigeration facilities) in summer pasture camps, sometimes as far as 100 km from the factory. Some of these processors collect themselves, and some use the services of specialized collectors.

19. **Medium scale processors using imported powder:** this channel represents 13 % of the VC (90 M Eql per year). These processors are usually located in urban centres. They use powder milk and sometimes vegetable fat which is far cheaper than butter or butter oil to produce cheese. However, according to the 2015 Technical regulation on Milk and Milk Products, the use of vegetable should be mentioned on the labels, and the use of vegetable fat normally prevents these processors to brand their final product as "cheese" but according to many sources, irregularities are frequent in this VC segment.

20. **Industrial processors:** This segment represent 12% of the total quantities (85 M Eql per year); Given the lack of a reliable, regular and competitive domestic supply chain for raw milk, industrial processors mostly use milk powder and other imported dairy ingredients (30%) in their transformation processes especially for liquid milk, yogurt, and other non-cheese products. These processors are not exclusively focused on imeruli and sulguni, they also process other kinds of cheese, fermented milk, but also increasingly western style products such as yogurt, liquid UHT milk. Some of the processors (Sante notably) are developing ranges of premium products, processed from local milk, which apparently respond to an increasing demand from local consumers for local authentic products; and both Sante and Soflis Nobati, the largest market players, are both committed to increasing their local sourcing of raw milk. Of the four large-scale dairy processors in Georgia, only two still purchase raw Georgian milk; however, the remaining two dairies plan to increase their local milk consumption for strategic reasons. The largest industrial processor, Sante (owned by the French firm Lactalis) has developed a ranges of premium dairy products, processed from 100% local milk.

21. **Sector Structure:** The dairy sector is poorly organized and structured. Dairy Georgia has recently been revived to represent the entire VC, but currently it primarily represents industrial processors. The National Milk Producers Association representing dairy farmers is not very active. The MEPA actively promotes cooperatives through the creation of the Agricultural Cooperative Development Association, and has special programs targeted at dairy processing and pasture management, but as noted earlier there is resistance by farmers to cooperative structures, and they are formed largely to take advantage of the special programs. There are two active general farmer associations; the Georgia Farmers Association and Future Farmers of Georgia. Both have significant programs supporting farmers, but neither have a dairy or even livestock structures or focus.

---

<sup>14</sup> 3 minutes at 62-63 °C is sufficient to eliminate Brucella from the milk. The normal Sulguni making process involves higher temperatures (boiling water) and longer durations, which makes it safe from this point of view.

22. At local level, there are no established community development participatory mechanisms that could incorporate the dairy VC, although the Rural Development Strategy of Georgia has recommended the formation of Local Action Groups to identify and initiate local collective initiatives. However, it is important to note that the Rural Development Strategy recognizes that the rural population of Georgia is not accustomed to participating in self-governing bodies, and so if these Local Action Groups are not well organized and run, and do not clearly and immediately benefit the rural population, interest from farmers will not last long. Thus, there are no mechanisms of consultation between VC actors have at either the regional or national level, except for, in principle, Dairy Georgia; this is in contrast to the Georgian Wine Association, e.g., which plays a significant role promoting and advocating the sector.

23. Much of dairy policy formulation and legislative reform related to the livestock sector have largely been driven DCFTA and EU approximation, conducted without active participation of the VC actors. The government is receptive to the establishment or strengthening of dairy platforms as a means of communicating with all actors in the value chain, from smallholders to industrial processors.

24. **Sector transformation:** The Georgia and EU Association Agreement, entered into force in 2016, introduced the Deep and Comprehensive Free Trade Area (DCFTA). By 2029, all Georgian SPS (sanitary and phytosanitary) regulations will have to be aligned to those of the EU, but already many ones important for the dairy sector have already been promulgated.

25. As of January 2018, all milk processing facilities have to comply with the new regulations with only limited exemptions for smallholder and other smaller processors, and these will be highly restricted to local, informal sales only. This will encourage smallholder dairy farmers to orient production towards the marketing of raw milk rather than transformation into cheese, which is fortunate given the increased demand for raw milk from the industrial processors noted above.

26. Food labeling laws in effect since 2016 ban the use of vegetable fats in dairy products, unless the product is given a different name (e.g. “non-dairy creamer” instead of cream). This may also stimulate the demand for local milk, especially when worldwide butter prices are high (if butter prices are high, this partially negates the benefit of using cheap SMP).

27. **Productivity:** the productivity of Georgian dairy systems is low, despite a constant increase over the last ten years. As shown in the table below, the average milk yield per cow at national level is 1,400 kg (as a comparison, the average yield in the EU 28 is 6,900 kg per cow per year<sup>15</sup>). This low productivity can be explained by several factors: (i) the daily productivity per cow is low (around 7 litres per day in average), due to the low genetic potential of animals and inadequate feeding, (ii) the fertility (number of calving per year per cow) is also little : 0.8 in average, when a cow should in theory calve every year ; this low fertility can be explained by various factors including health status, inadequate feeding and bad management of reproduction, and (iii) the lactation duration is very short, usually between 200 and 250 days (should be 305 days), mainly because of feeding constraints.

**Table 14: milk yield and fertility per cow.**

Region	Milk yield per cow	Fertility cow (litter per cow per year)
Imereti	1,459	0.86
Samegrelo	1,183	0.70
Samtskhe Javakheti	1,530	0.85
<b>National</b>	<b>1,421</b>	<b>0.81</b>

Source GEOSTAT 2016

28. In terms of productivity (milk per cow), which reflects the level of intensification, Samtskhe Javakheti is ahead, followed by Imereti. Samegrelo is the last of the three regions, due to its lower level of specialization in dairy production compared to the two other regions.

<sup>15</sup> Source: European Union – Eurostat 2017

29. **Production systems:** 4 main types of dairy production systems can be identified in the programme area: the lowland extensive and traditional system, the mountain extensive and traditional system, and the increasingly important lowland semi-intensified system. All can be considered as smallholder systems. There are a few large scale intensive farms in the region too. The main characteristics of these 4 dairy production systems are as follows:

- **Type 1 - Lowland extensive traditional system:** In this system, the size of the herd is the smallest of the three types: these farmers own 1 to 4 animals, always of local breed; the total number of cattle holdings under this type is around 80,000 which represents 69% of the total number of dairy farms. In these systems, animals are mostly fed on communal pasture and marginal land, from spring to autumn. In winter, cattle are fed with crop residues, sometimes with hay. The consumption of inputs and services is minimal, and so is the productivity: lactating cows often produce 5 litres per day or less, which is transformed into cheese. In this production system, livestock is not the main activity, and crops or other non-agricultural activities are a more important source of livelihoods. The main motivation for keeping animals in this system is to have cheese available for home consumption.
- **Type 2 - Mountain extensive traditional system:** The farmers in this system are not necessarily located in areas designated as high mountains under Georgian law, but they use mountain summer pastures during at least part of the year. The herds are usually bigger than in the lowland systems (1 and 3), and farmers can have up to 20 animals, 5 to 10 being the most common size. Animals play a more significant role in the economy of the household than in the previous system, because arable land is usually scarce, steep and difficult to cultivate in mountainous areas. On the other hand, pastures are available in relative abundance, both around the villages and in the high mountains. The herds are brought to high mountain pastures in summer (see component 2 for description of summer pasture management modalities), for 3 to 4 months. During this period, animals are well fed because of the availability of grass and quality of summer pastures, and they therefore partially recover from winter underfeeding and substantially increase their milk production. Milk processing takes place in the mountains, and cheese is brought back down to the villages by the available means (four-wheel drive cars, horseback). The contribution of dairy activity to the household economy is therefore more important than in the previous type and the system is more market oriented. During transhumance, the lowland individual grass fields are used to produce hay which will be consumed during winter. During autumn and spring, animals graze pastures around the villages, and also in forests that constitute a significant buffer fodder reserve. In winter, they are kept in traditional cow sheds, usually during 4 to 5 months. They are fed with hay, crop residues such as corn stalls, with sometimes a bit of concentrate (bran).
- **Type 3 - Lowland semi-intensified system:** The size of these herds varies from 5 to 20 animals with an average of 8-10 heads of cattle (4 to 5 cows). This system is the most market-oriented smallholder type; farmers generally produce milk to sell it raw to factories and processors, and if they process cheese at home, it is mostly for home consumption. These progressive farmers have upgraded most of the aspects of the production systems: they own improved animals (usually crossbreeds), they produce quality fodder (mostly hay, sometimes silage) to feed their animals during winter and they complement them with concentrates. This reduces the seasonality of production and allows them to sell more milk when prices are at their highest level. Some of them who have access to summer pasture use this resource for dry animals and heifers, or harvest hay from the summer pasture when they are accessible. But they increasingly keep their lactating animals near the milk collecting centres. In this system, the communal lowland pastures don't play a pivotal role in the feeding system, and high-quality fodder such as maize, alfalfa, are increasingly produced on arable land.

The cumulated number of cattle holdings under type 2 and 3 is 35,000 (30% of total); Available figures do not allow disaggregating those under type 2 (mountain extensive) and 3 (plain intensive). However, according to their geographic distribution, it seems that the mountain system (type 2) represents the majority (probably around 20 to 25,000 units), and the plain intensive (type 3), from 5 to 10,000 holdings.

- **Type 4: Large scale commercial farmers:** in the programme area, this type is only represented by a handful of farmers, but its share keeps increasing. These modern farmers have more than 20 cows, often of improved breeds (Holstein and Brown Swiss mostly), kept in modern installations. They produce quality fodder (fresh, silage, hay) on arable land, use concentrates, veterinary services, and AI. Summer pastures are used for hay production or for non-lactating animals. Despite these improved practices, the production level remains far below the potential of animals, between 3 and 4,500 liters per animal and per lactation.

30. **Dairy Farm Size:** The average number of cattle per household is 1.54 (Geostat, Agricultural Census, 2014), compared to an average of about 60 in France and Switzerland, and 900 in the United States. The overwhelming number of households (94 percent) have less than 10 cattle, and only 103 holdings have more than 100 heads. Many smallholder farmers are older with little understanding of – or interest in – livestock as an attractive business opportunity. Instead, livestock keeping is seen to be a coping strategy for a semi-subsistence lifestyle supplemented by other agricultural and non-agricultural activities as noted earlier. Some of the more enterprising households use livestock as a “cash cow” and diversity into other activities. The MEPA is encouraging the formation of dairy cooperatives through general incentives as well as targeted subsidies to expand dairy processing and better pasture management. However, there is a strong suspicion of cooperatives stemming from the forced collectivization of the Soviet era, and the few dairy cooperatives that have been formed primarily to take advantage of these incentives, rather than a genuine desire to work together, with the attendant danger of elite capture.

31. **Nutrition:** The vast majority of cattle are managed under low-input extensive systems relying heavily on grazing. In lowland systems, cattle graze on degraded communal pastures near the village from April to October, supplemented by crop residues and hay with low nutritional content in the winter months. In highland systems, cattle are also provided low quality fodder in winter, but are brought to high quality alpine summer pastures during the summer months, which compensates in part for the poor winter feeding. There is little understanding of fodder production, processing, and storage, except for the small but increasing number of farmers that have adopted a semi-intensified feeding system where animals are fed high quality fodder (hay and silage) with concentrates, accessing summer pastures when possible, but generally keeping lactating animals in-barn.

- **Fodder use and conservation in traditional systems:** the main conserved fodder for winter feeding are hay and crop residues (corn stalks, straw). The hay is usually harvested by hand, but it is often harvested too late, when the grass has started maturing and drying, and the quality is therefore not optimal. The hay is usually carried back in bulk to the farm with various means including horse-back in mountains, but it can also be kept in the hay fields. When the hay and corn stalks are kept in traditional wooden barns, above the animals, the conservation conditions are good (good ventilation and protection against rain), and the quality of the fodder doesn't further deteriorate. But it is also often kept outside, in haystacks that are not protected from rain and sunlight, and the final quality of fodder kept in these conditions is very low.
- **Fodder use and conservation in improved systems:** in areas where the raw milk market is expanding, processors and collectors are ready to pay substantial premiums for winter milk (+50 to +80%). This encourages farmers to improve winter feeding, and to produce and conserve quality fodder. Specialized service providers who used to provide mechanization services for crops, have now acquired second hand hay baling machines from western Europe and they provide hay baling, and even sometimes silage making services. These mechanization service providers are often farmers themselves, who have



acquired fodder making equipment for their own use primarily. The State owned Mechanization Service Centres (MSCs) also provide these services in some areas, but their capacities are limited and they have difficulties to satisfy the demand during the harvesting season. Majority of farmers who use mechanization services use them to harvest natural grass from hay fields, but in some cases also for harvesting alfalfa, barley or other high-quality fodder crops grown on arable lands. The quality of fodder harvested in bales or as silage is much higher than the traditional hay (because of better conservation, and earlier harvesting in the case of silage), and this has obviously a very positive effect on the milk yields and on the seasonality of production.

- **Availability of arable land for fodder production:** intensification and modernization of dairy production requires significant changes in fodder production practices and in particular more intensive and mechanized production of high yield quality fodder such as maize, alfalfa, unmaturing cereals and selected grasses, either for use as fresh fodder, or for conservation and distribution during winter. These crops have to be grown on arable land. The availability of this key resource, or its accessibility (arable land could be available, but because of land tenure issues, could not be bought or rent by dairy farmers), can be limited, and could hamper the dairy sector modernization process.

32. **Pasture management:** Pastures continue play a predominant role in animal nutrition in Georgia. Current pasture management and use practices also have major impact on animal health, milk collection and processing systems, and the ability to upgrade genetic potential. Animals graze between 8 (in mountains) and 12 months (in plains) per year, on communal pastures around villages from spring to autumn (and sometimes in winter too, despite the scarcity or even absence of grass), and on summer pasture when they are available. They also graze harvested crop fields in autumn, where they consume crop residues and fertilize the soil. For grazing, animals are usually pooled in collective herds that are taken care of by a shepherd or by one of the owners, on a rotational basis. Few farmers own individual pastures that are fenced except hay fields in the plains that are also used as pastures after harvesting the hay, in late summer and autumn. The following discussion focuses on communal pastures under public ownership, and not with pastures held privately by leasehold or title. These pastures can be divided into two types, summer pastures and communal (lowland) pastures.

- **Summer pastures** are located in high mountainous areas up to 3,000 m, and are used 4 to 5 months a year, from May to August or September, depending on the altitude. Summer pastures are covered by alpine meadows, of high quality and nutritional value, with a carrying capacity of these pastures vary from 1 to 3 animals per hectare depending on the altitude. Farmers from the same village usually put together their animals and send them in collective herds to summer pastures, either under the responsibility of a shepherd, or of one of them (on rotational basis). The intermingling during transhumance and grazing increases the potential for disease transmission.

Summer pastures are under the ownership of the Ministry of Economy, but most summer pastures are entirely self-regulated, according to informal grazing rights held by villages or groups of villages and not individuals. The delimitation of the territories allocated to each village is reasonably clear, and conflicts between communities of users and villages over the use of summer pastures are therefore not common. The summer pastures are usually underutilized, and overgrazing is only observed around cattle concentration points such as watering areas.

Summer pastures are served by roads and tracks of varying degree of disrepair; some are accessible by ordinary or four-wheel drive vehicles, but many are only accessible by foot or horse back. The distance between the closest road or village and the summer pasture is usually around 15-20 km which means that practically speaking animals spend the summer in the pasture.

Communal shepherd's huts in the summer pastures built in the Soviet era are now in bad condition. Water sources are available, but water supply infrastructures (water catchment and water points) require renovation. Cattle pens are absent or basic, and there are usually no crush pens for treatment of animals. Because of the access problems, it is not possible

to collect raw milk from most summer pastures. Animals are milked on the spot, with inadequate hygienic conditions, which negatively impacts milk quality. The milk is processed into cheese using rudimentary facilities that do not meet basic hygiene and food safety requirements, and cheese is stored without refrigeration equipment, which can lead to microbial contamination. In the absence of usable roads, cheese is carried on horseback to the nearest village or road, usually every 10 days or so.

For many small farmers owning less than 5 cows, it is not practical to bring animals to the summer pasture because they cannot afford the costs of doing so, and they need the milk from the cows on a daily basis. Increasingly, farmers that use summer pastures are those with 10 cows or more. Farmers who sell raw milk to dairies instead of processing themselves have also changed the way they use summer pastures: they manage lactation so that milk production is low in the summer when raw milk prices are the lowest, when they send dry animals, bulls, and heifers to the summer pastures, and keep the few lactating animals in-barn near milk collecting networks. Another major trend for progressive farmers who raise improved dairy breeds in intensified systems is to use the more accessible summer pastures for hay production. This practice enables them to raise improved breeds that cannot tolerate transhumance or high mountain conditions, it shortens the distance between milk production and the point of primary collection, reduces the risk of disease transmission, and allows them to produce high quality hay to feed their animals during winter.

- **Lowland communal pastures** are located around villages. Some pastures in warmer areas are used all year round; but in colder locations, animals are kept inside during 2 to 4 months. Grazing and shepherding modalities are diverse: some animals are totally free, others are pooled in collective herds which are taken care of by a collective shepherd or by owners on a rotational basis. In all cases this facilitates the spread of disease.

As with the summer pastures, the lowland communal pastures belong de jure to the Ministry of Economy. Some municipalities have tried to regulate the use of these pastures, but access is generally free for all members of the community. The lowland pastures are therefore usually overgrazed, resulting in heavy degradation of quality and significant loss of productivity. Lowland communal pastures remain very important for the poorer and subsistence-oriented smallholder farmers, but the more progressive farmers cows use a combination of privately owned pastures, forage crops grown on arable land, and purchased feed.

33. **Genetic resources:** the local cattle breed is not homogeneous, and the characteristics of animals vary substantially from one region to the other, including within the programme area. The local cattle populations are the result of mixes of indigenous and imported genetic material. The Mengrelian red cattle found in Samegrelo plains is a crossbreed of local breeds with the Russian Red Steppes. The Georgian mountain and Caucasian brown breeds found in mountainous areas are mixes of local mountain breeds with Brown Swiss and Russian breeds. These indigenous animals are very small and light (250 kg in average for adult cows), and their dairy potential is limited: the average production is around 1,400 kg per lactation and is mostly limited by feed; Well fed animals produce up to 10-12 kg of milk per day and the maximum genetic potential of the local breeds is therefore estimated around 2,500 kg per lactation. The dry matter content (fat and protein) of local breed is high, up to 4.2 % of fat in winter, with an average of 3.8 % over the year<sup>16</sup>. This is an asset for cheese processing.

- **Genetic improvement:** during soviet times, improved breeds had been introduced but this potential has been lost because of poor breeding (including inbreeding). Recently, some progressive farmers, often with the support of development agencies, have crossed their animals with highly productive breeds (Brown Swiss, Holstein, Jersey, Montbéliarde), or

---

<sup>16</sup> Source: SANTE Milk Collecting Center Abasha

have even imported improved pure live animals. This had so far a limited impact in the programme area, where local breeds dominate. AI services have been introduced by various development projects, and specialized service providers were trained and equipped, but the adoption of this technology by dairy farmers, including progressive farmers, is still low. This could be explained by several reasons including: (i) the low success rates, often as bad as 20% of success per AI, which is probably due to inadequate capacity and experience of AI technicians, (ii) the use of large breeds such as Holstein which create calving difficulties when inseminated on small local cows, and (iii) the choice of breeds (Holstein in particular), too fragile for extensive production systems, particularly the mountain-based systems.

- Due to the government and donor programs, there is an increasing awareness and demand by smallholders for purebred bulls to improve the genetic stock by mating with the local cows. AI services, as well, have been introduced by various development projects, and specialized service providers were trained and equipped, but the adoption of this technology by dairy farmers, including progressive farmers, is low due to shortcomings in the skills of the AI technicians and in farmers, and the use of large breed semen which causes calving problems in the smaller local breeds.

34. **Reproduction:** Reproduction and breeding is unmanaged in traditional extensive systems, in particular because of grazing practices where animals of all ages, all sexes and from various owners graze together. It is therefore very difficult to control the date of mating in these conditions, or to select the mating bull; this also results in inbreeding, early mating and early calving of heifers that affects their future performances (The early pregnancy stops the growth of the heifer, which therefore cannot reach the normal weight and size of an adult cow), and transmission of diseases such as brucellosis.

35. **Animal health:** the animal health status of Georgian cattle is affected by several animal diseases; the most important ones for the dairy sector are as follows:

- Brucellosis is the main animal health problem affecting dairy cattle: it causes poor reproductive performance, due to abortions, infertility, stillbirth or birth of weak offspring. It results in huge economic losses to dairy farmers. It also impacts human health (transmission by direct contact or milk), and trade (It is listed as a Transboundary Animal Disease by the OIE<sup>17</sup> which restricts trade opportunities for infected countries). At national level, 2% of the animals are infected according to Veterinary Services, but according to the same source, as much as 27 % of farms and 58% of villages have at least one animal infected, which means that the risk of having Brucella infected mixed milk at MCC level is still quite high, despite the low individual prevalence. The National Veterinary Services are engaged in a very ambitious programme to control brucellosis. It is based on both vaccination (mass vaccination the first year, vaccination of heifers the following years), and slaughtering of infected animals. The main constraint faced by the veterinary services to implement this control strategy is the absence of compensation fund; farmers who fear being found with an infected animal often dissimulate them, which makes the task of veterinary services more complicated. The only way to sort out this problem and allow the veterinary services to stamp out all infected animals, which is a condition for eradication of the disease, would be to compensate owners of eliminated animals. The annual cost of such a compensation mechanism is estimated by the Veterinary Services at USD 10M for the first year of implementation, less for the following years.
- Other Transboundary Animal Diseases such as Foot and Mouth Disease, and Anthrax are present in the country, but they are under control of the Veterinary Services and do not have a very significant impact on the dairy value chain.
- Mastitis is the most common production disease in dairy systems. It has a substantial impact on productivity (milk production), on longevity of cows, on calf health (brings diarrhoeas) and it also negatively impact cheese processing. Mastitis can be controlled by improving the milking hygiene, and by a better management of the drying period.

---

<sup>17</sup> World Animal Health Organization

36. **Veterinary services:** the public veterinary services are understaffed (36 persons at national level, 120 in the field) and therefore face difficulties to fulfil their responsibilities related to veterinary public health (control of TADs and zoonotic diseases, including brucellosis) and food safety (inspection of food of animal origin). For vaccination campaigns and disease surveillance, they therefore sub-contract private veterinarians and paravets (650 in total), which is a classic arrangement. The veterinary legislation has been assessed by the OIE in the scope of the OIE PVS<sup>18</sup> pathway, but the report has not been put in the public domain. However, despite recent amendments (2003), the legislation appears outdated (the core text originates from 1965) and would require a complete revamping to comply with the actual OIE international standards<sup>19</sup>. This would be a prerequisite to be allowed to trade animal products with other countries, with EU in particular. Public Veterinary Services receive significant support from the EU under the ENPARD programme to upscale their capacities, and in particular improve veterinary public health aspects.

37. **Animal Husbandry/Management:** Smallholders do not manage their cows' pregnancies, so that most cows are producing milk at the same time in the summer, and most are in the dry period at the same time in the winter months. This makes sense under traditional, low-management systems where the animals have access to summer grazing during their periods of greatest need, and there is not adequate food or shelter provided during the winter months. However, this also means that farmers are not taking advantage of better milk prices that are available during winter, and the steep drop in supply is also highly disruptive to processors depending on raw milk. Hygiene, sanitation, and disease cause serious problems in milk production and quality.

38. **Animal identification:** Georgia is engaged in an ambitious programme of Livestock Identification and Traceability System (LITS). The design of the system has been supported by FAO and the Swiss Government, and it is currently being upgraded. More than 50 % of cattle have so far been identified. Starting from 1<sup>st</sup> January 2018, animals will be accepted in abattoirs for slaughtering only if they are tagged, and the same will apply for delivery of milk in a milk collecting centre before the end of 2018.

39. **Service Providers:** All regions have some private mechanisation service providers, who own various types of tractors, mowers and balers for fodder production. Many of the more progressive service providers have formed farm service centers, and are organized under a national association with strong support from donors. The state owned company, Mechanizatori, provide similar mechanization services with modern equipment including silage makers, in 15 regional centers, but their efficiency is reportedly low, the scale of equipment large for smallholders, and the cost to the farmer quite high if they are not located close to the regional center. A key issue for both private and public service providers is that most smallholders are not convinced of the value of improved animal nutrition for their own farms, and thus are not willing to seek out and pay for these services.

40. **Beef value chain:** there are very few specialized beef farms in Georgia. Consequently, most of the beef produced in the country comes from cull dairy cows and young males reared in dairy systems. Every year, around 110,000 heads of cattle are exported live, mostly to Azerbaijan, for a total value of 47 M USD. Exported animals are usually the best quality young males. Around 140,000 heads of cattle are slaughtered locally, around half of them are cull cows which are mostly transformed into sausage and other beef preparations. The other 50 % are young animals that are mostly consumed as fresh meat. Significant amounts of bovine meat are imported, primarily frozen, for use in the processed food industry. In fact, one of the largest meat processor has a policy to source 100% of meat requirements from imports due to problems in quality, consistency, and erratic

---

<sup>18</sup> Performance of Veterinary Services: the PVS pathways aims at assessing the compliance of veterinary services setup and operations with international standards and guidelines; Georgia has been subject to an OIE PVS assessment in 2009.

<sup>19</sup> The main issues that would need to be looked out in the legislation to comply with international and EU standards are : animal welfare, definition of the respective roles of private veterinarians and veterinary authority, legislation on use and delivery of veterinary medicines, and use of antimicrobial agents and control of antimicrobial resistance

supply of domestic beef. Imports are mostly from Ukraine, the EU, and India, and total value reached USD 17 M in 2015.

### Financial sector and rural finance

41. **Access to finance**<sup>20</sup>: The Georgian financial sector is dominated by 21 local banks that are well capitalized, liquid and resilient. The sector weathered successfully several shocks, including the 2008/09 financial crisis, the conflict with Russia, the domestic political uncertainty and the spill over effects of the most recent Russia-Ukraine conflict. Despite slowdown in the country's economic performance, credit growth has been rapid and with a positive outlook in light of the peaceful democratic transition, the signature of the EU-Georgia Association Agreement, falling sovereign rates, and the recent listing of the second largest commercial bank (TBC Bank) on the London Stock Exchange. The non-banking sector comprises 69 MFIs, 17 credit unions and 5 leasing companies with assets not exceeding 4% of the GDP. Insurance sector is small.

42. Rural financial needs are being served by several of the mentioned banking and non-banking institutions in cooperation with a variety of government-funded schemes. Agriculture, being a priority industry for Georgia, is supported by government grants and subsidies, operated by a) APMA which offers co-financing for collateralized first time preferential loans for perennial and nursery gardens, drip irrigation systems, vineyards, tea rehabilitation, dairy cows, breed nurseries, cold and dry storage facilities (11% interest rate subsidy and 50% collateral guarantee); b) ACDA which operates State support programmes fostering hazelnut production, beekeeping and dairy production through Agricultural Cooperatives, offering matching grants for purchasing dairy production equipment and AI kits for cattle and c) Enterprise Georgia, which facilitates access to finance by bank loan interest rate subsidies for the first 24 months and partial collateral guarantee (50%) for the first 48 months, of new investments. Furthermore, IFAD's programme AMMAR (operated by APMA) offers a window of 40% partial grant for supporting climate smart agricultural value chains and a DANIDA funded grant offering 40% partial grant to young entrepreneurs in rural areas. Government funded schemes input more than 50 million GEL a year in the rural credit market.

43. Despite the relatively generous supply of rural credit in Georgia, farmers (and especially the poorest segments) are often unable to reach available funds for a number of reasons, including a) cumbersome application procedures; b) prohibitive collateral requirements; c) weak technical and business capacity of the farmers; d) weak financial literacy of the farmers; e) distrust in the financial sector. Financial inclusion data reveal that although 40% of the population has a bank account, it is only a small percentage (less than 15%) using the account for payments, suggesting an unbanked, cash based economy. Less than 15% of the population reports savings, of which only an insignificant fraction are formal, indicating a limited savings culture. Remittances (both inflowing and outflowing) are imperative to the Georgian economy and a driver for rural investments. While formal borrowing is reported to be applicable to less than 15% of the population, total borrowing exceeds 30%, suggesting that a large part of the population seeks credit from the remittance holder instead of the financial sector.

44. **Banks.** The banking system consists of 21 banks with aggregate assets equivalent to 64% of GDP and about 200 branches (and 800 service centers) dispersed around the country. Most of the banks are foreign-owned with only three purely domestic and not one state owned. Banks dominate the financial sector, given an underdeveloped nonbank financial sector and almost nonexistent capital markets. The two largest banks – Bank of Georgia and TBC Bank – account for more than half (58%) of the total assets. They also own an insurance company, nonbank financial institutions, and a number of nonfinancial companies. These same banks are the largest participants in rural lending which represents 5% of the total national lending portfolio. Two MFIs operating in the rural areas have recently become banks (Credo and FINCA) and can now accept rural deposits, additionally to issuing loans. Banks offer retail, SME, micro and corporate loans - agro-lending falling under the SME and micro categories. In cooperation with the government funded schemes they can offer subsidized

---

<sup>20</sup> Source: National Bank of Georgia, IMF FSAP, World Bank Financial Inclusion Data.

interest rates (nominal minus 11% co-financing by the MEPA in GEL denomination) for loans above 20,000 GEL and maximum loan term up to 10 years, maximum grace period up to 5 years and maximum nominal interest rate up to 16%. Interest rate is established according to the client's credit score and rating, as defined by CreditInfo and the risk factor of the investment, as defined by the Bank's credit risk assessment tools. Banks have developed over the years sound agricultural risk assessment tools for most of the existing value chains and credit officers follow standardised procedures when assessing investment proposals.

45. **MFIs.** The sector includes 69 microfinance institutions and 17 credit unions. The sector's assets are equivalent to 3.5% of GDP with a loan portfolio of more than 1 billion GEL, 25% of which is directed to agriculture<sup>21</sup>. The development of credit unions was promoted by the World Bank and IFAD until 2009<sup>22</sup>, as a fundamental constituent for the development of small business and especially as a vehicle to channel credit to the poorest farmers (with less than 1Ha, 1 cow pig or sheep). It was since set aside, given the limited traction of the concept to the GoG that did not support it with relevant policy framework. MFIs are playing the dominant role in extending financial services to rural areas through targeted loans and low collateral needs. They started operating since the late 90s, supported by IFIs and international NGOs. Out of the 69 MFIs only a few are operating under the socially responsible principles. The NBG has acted to limit the operation of unregulated financial service providers who borrow from individuals and issue fast loans by introducing a new category of financial institutions. In addition, MFIs self-monitor the sector through the Association of Microfinance Institutions. After the graduation of Credo and FINCA to become banks the main players in the rural areas remain Crystal and Lazika. MFIs have developed a knowledge base on the agricultural cycles of several crops and loan officers provide information to prospective clients for streamlining their investments and repayment schedules. MFIs offer loans from 300 to 50,000 GEL for 14%-40% interest rate<sup>23</sup>, with duration from 3 to 36 months and a grace period of up to 6 months. The issuing procedures are simple and fast (2-3 days and for small amounts can be immediate through online risk assessment tools). MFIs cannot offer subsidized loans under the government funded schemes and therefore their interest rates are higher and often perceived as prohibitive (an evidence of the crowding out effect of the government subsidies). The MFI sector has been growing rapidly over the past few years and supply for micro-loans has been increasing. The market is becoming competitive and MFIs have to resort to aggressive sales strategies, dispatching representatives to input suppliers' shops in the appropriate season, offering instant loans that can be repaid, after harvest.

46. **Capital adequacy and liquidity.** The financial sector is well capitalized and liquid. The NBG reports that banks exceed the prudential requirements with a CAR of 16% (13% for Tier I capital) and liquidity ratios exceeding 40%. Loan to deposit ratio is more than 100%, net interest margin higher than 6%, return on average assets 2.5, return on average equity close to 15% and financial leverage 6 times.

47. **Asset quality.** NPLs of the commercial banks that have increased between 2008-10 are now under control as a result of strong credit growth, write-offs and loan restructuring. It is particularly interesting to note that agriculture and forestry demonstrate the lowest NPL ratios. Commercial banks with agro-lending departments reported that agro-lending risk assessment is a manageable and straight forward process affected only by climatic adversities and diseases that can however be insured. NPL rates in agricultural portfolios do not exceed 1.5%. Similarly, MFIs can control delinquencies by closely monitoring riskier investments that are often financed with uncollateralized loans. Most MFIs report NPLs of less than 1.5% on rural lending.

48. **Collateral.** Availability of collateral is a binding constraint on financing, and this constraint binds harder in more underdeveloped financial markets. A higher percentage of collateralized credit adds to

---

21 Data: Association of Microfinance Organizations.

22 Credit unions were at their peak in 1999 with 164 fully operating CUs and 12,000 members.

23 Interest rates are established on the basis of the prospective client's credit history and the risk factor of the project. They are reported to average around 20-25%. The average size of rural loans are reported to be around 5,000 GEL

the quality of FIs assets. It is often the case, however, that rural smallholders (especially female and young) cannot provide what is considered acceptable collateral (fixed assets - usually land or buildings that can be easily converted to cash). Movable assets such as cars or cattle or crop often account for most of the capital stock of rural entrepreneurs and smallholders. To this effect, the National Bureau of Enforcement offers movable property valuation to facilitate loan applications, by allowing out-of-court enforcement of collateral. Moreover a number of MFIs (including Credo, Crystal and Lazika) have developed expertise to manage risks of agricultural lending without (or with reduced) collateral. MFIs report that this can only be achieved with physical presence in the rural areas and with close monitoring of portfolio. They also report uncollateralized lending of 48% of their total loan value. In addition, government funded schemes offer guarantees of 50% of the FIs collateral requirements. They also offer partial grants for machinery that can subsequently be used as collateral for obtaining a matching loan.

49. **Foreign Currency Risk.** Commercial Bank's and MFIs balance sheets are dollar heavy. Roughly, 60% of deposits and loans are in foreign currency. Over 90% of the foreign currency borrowers rely on local income and are therefore unhedged against depreciation. The MFIs rely on IFI and International NGO lending or grants denominated in USD, while their loan portfolio is in local currency. Their cost for hedging against depreciation/devaluation adds around 8% to 10% to their interest rates. The ADB, the IFC the BSTDB and the EBRD have been issuing GEL denominated debt securities and bonds to help enhance secondary markets and promote the development of local corporate bond market. The GoG decided to undertake measures to support "larisation". It gave the opportunity to convert USD denominated loans to GEL with a GEL exchange rate of GEL 0.2% lower than the official rate, with the difference being reimbursed as a subsidy from the state budget. Furthermore, loans in small amounts (up to GEL 100,000) would only be issued in the national currency since January 2017.

50. **Credit Info and credit risk assessment.** CreditInfo Georgia specializes in providing credit information to banks, leasing companies, MFIs or any other lending institution, on the financial status and credit history of all loan applicants. CreditInfo is available online (subscription service) allowing immediate identification of bad debtors and people unwilling or unable to repay their dues. FIs can then reward responsible borrowers with lower interest rates.

51. **Leasing.** There are five leasing companies in Georgia at least three of which operate in the agro/rural sector (TBC Leasing holds 70% of the market share, Alliance Leasing, Bank of Georgia Leasing). The sector is not well developed as it represents only 0.2% of the GDP (1% of GDP in developed economies). Agro-leasing is being offered for machinery, greenhouses, irrigation, wineries and recently for dairy farms. The term of the financial lease ranges between 3-5 years and the interest rate varies between 13%-18%. An additional 0.5% is being charged for mandatory insurance and another 0.6% for ownership tax. Alliance Group (which holds 5% of the market share) developed micro-leasing products under its CSR. It offers minimum lease of 500GEL and up to 20,000GEL. All leasing products require 20% to 30% own participation. Leasing is supported with an 11% government subsidy on the interest rate. There are two policy related issues that need to be addressed: a) amendments to VAT treatment of leasing, While there is no VAT on interested rate of loans, VAT is charged on leasing interest rate, thus making it less attractive to borrowers; b) leasing law allows financing of assests with depreciation thus excluding livestock to be eligible for leasing. A comprehensive NBFi sector policy review<sup>24</sup> should introduce relevant amendments.

52. **Insurance.** Agro and micro-insurance are slowly developing in Georgia. There is a number of insurance companies in Georgia (Aldagi, Ardi, GPI, IC Group, Alpha etc.), some of which offering agro-insurance products. Some are developing livestock insurance charging 6GEL to 10GEL per cow per month depending on the breed. Insurance companies report that a main hindrance for the development of the sector is the uncontrolled fraudulent claims from farmers who consider insurance as an "investment" from which they must profit. Some Banks and many MFIs include insurance in

---

24 As recommended by the IMF FSAP 2014.

their offerings bundled with lower interest rate as a reward. Some MFIs report penetration rates as high as 40% of their rural portfolio.

53. **Government Funded Schemes (Grants and Subsidies).** In the past five years or so, the GoG is offering incentives for investments in Agribusiness, Energy, Infrastructure & Logistic, Manufacturing, Real Estate and Tourism. To this effect, it established a number of institutions. Most relevant to rural development are:

- (a) APMA was established in 2012 by the MEPA in order to promote and stimulate primary production and processing. It finances a) Investments in the production of vegetables, berries, mushrooms, herbs and high-tech greenhouses, high-tech and intensive farming of cattle (dairy-meat), high-tech and intensive pig farm; high-tech and intensive poultry farming (directed towards meat generating and breeding purposes); high-tech intensive and animal's valuable furs' farm; high-tech and intensive fish production; beekeeping, establishment of seedling and nursery gardens, perennial orchards, vineyards, plantations, etc. b) Processing of fruit, berries, vegetables, mushrooms, citrus, nuts, hazelnuts and other nuts. wool, leather, bay leaf, tea, tobacco, vegetable fats and halva (butter, margarine, boiled butter), honey, oil and spices, meat and milk, slaughter-houses, feed production for animals, birds and fish, and c) Warehouses for storage, grain dryers, refrigeration storage facilities. Within the Program Loan / Leasing cannot be issued for the alcoholic beverage production made by the grape processing. APMA offers a) 11% subsidy on GEL denominated loans for investments between 20,000 GEL and 75,000 GEL and 15% subsidy for larger investments. Banks are allowed a maximum nominal interest rate of 16%; b) up to 70% subsidy on agro-insurance premiums. Credit risk is being assessed by co-operating banks and the application and selection criteria are simple and straightforward. APMA provides also training modules for its beneficiaries.
- (b) ACDA supports the cooperative movement offering: a) grants for hazelnut production, processing and marketing; b) state support for the modernisation of honey production methods, improvement of honey quality and increase of honey quantity, and c) grants and subsidies for improving and increasing milk and dairy production, streamlining milk collection and processing, upgrade quality of milk and dairy products, cattle breed improvement. ACDA provides capital investment and technical assistance to agricultural cooperatives for equipping them with modern milk collection and processing infrastructure; for purchasing laboratory equipment to control raw milk and necessary equipment for AI to improve breeds.
- (c) Enterprise Georgia offers support to larger industries but also to micro and small businesses (5,000 GEL per entrepreneur) with prizes showcasing successful start-ups and existing business. The program offers BP development training and support for attracting FI co-financing.

54. **Livestock Specific Available Grants and Subsidies.** Livestock specific preferential financing is offered under the subsidies and grants of APMA and ACDA and channelled through the banks. Meat and milk producers can benefit from subsidized interest rates 11% for investments higher than 20,000GEL. Meat producers must have new breeds only. Preferential loans are offered for the purchase of 20 or more dairy cows. Milk collection facilities, slaughterhouses, purchase of feed production equipment etc. are also eligible for support. ACDA offers to cooperatives (of minimum 3 persons and 51 to 150 milking cows) 100% grant for the purchase of either milk storage or milk processing equipment for up to 500lt. If the cooperative has more than 300 cows then the grant is for the purchase of equipment corresponding to 3tons. Additionally ACDA offers grant for laboratories, AI equipment, training and monitoring for 5 years. ACDA can finance 12 cooperatives a year on average.

55. **Remittances.** 22% of the population (age 15+) receives remittances according to World Bank data, while another 10% is sending remittances abroad. Annual remittance inflows represent more than 10% of the GDP. Remittances are mostly spent on consumption, healthcare and education.



Transfers are effected mainly through informal channels for a cost of around 5%/ Remittances can become a driver for rural development and poverty alleviation if properly channelled.

56. **Financial Inclusion.** Relevant World Bank data reveal that Georgian population does not have a developed culture of savings. While total savings account for less than 15%, formal savings do not exceed 1%. Mandatory savings are recognized to be beneficial in the effort to alleviate rural poverty and Georgia is not using this instrument. Data also indicate that remittances are another untapped potential. Despite the fact that 40% of the population (aged over 15) have bank accounts, the use of bank accounts is limited. This means that banks will not have a record on an account holders activity so as to assess his/hers creditworthiness. This fact corroborates with empirical evidence indicating lack of financial literacy in the poorest segments of rural Georgia, bundled with lack of entrepreneurial knowhow and inherent distrust in the financial sector.



## Appendix 2: Poverty, targeting and gender

### Poverty And Gender In Georgia Background Information

#### A. MIGRATION AND EMPLOYMENT

1. **The rural population of Georgia is in decline.** Almost 1 million people or one fourth of Georgia's population live abroad. The country's population (excluding the population of occupied territories) amounted to 3.7 million people (by January 1, 2015) with almost 42.8 percent living in rural areas, 30 percent living in Tbilisi, the capital city, and the remaining 27 percent residing in cities and small towns. The population of regions significantly varies in size, with Racha-Lechkhumi being the smallest region - with population of about 32,000 people and Imereti being the largest, with population of about 400,000.

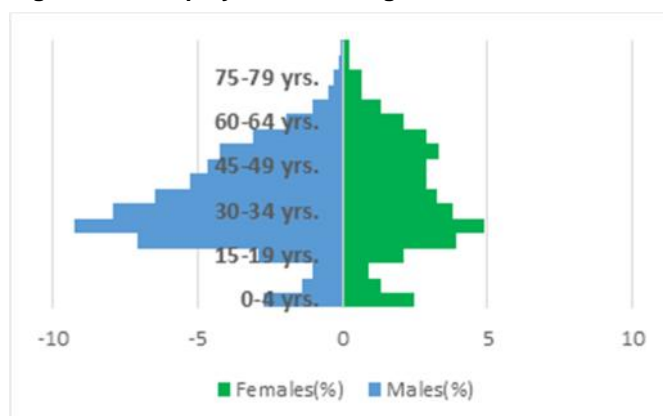
2. **Migration to other countries.** There has been a significant outmigration of Georgians abroad, triggered by a search of better employment opportunities. More educated, and highly skilled people tend to migrate to OECD countries, while manual labor migration is dominated by the closer destinations, such as Russia, Armenia, and Ukraine. Most emigrants (are between 20 to 50 years bracket between 70 percent and 80 percent according to different surveys) with about 40 percent of them being below 30 years, and with majority being men.

3. Relative to other CIS countries, the remittances do not play significant role in country's economy, but their share in the GDP is still high. About 7-10 percent of the resident population of Georgia receives remittances from abroad annually. According to the World Bank, total remittances amounted to US\$ 824 million in 2010, and about USD 1.440 billion in 2014, making about 8.7 percent of the GDP. Various studies shown that remittances are mostly spent on consumption needs, with smaller share spent on healthcare and education.

4. **Internal migration's rate is high.** About 7 percent of population in Georgia are internal migrants, who migrated from occupied Georgian regions of Abkhazia, and Tskhinvali Region/South Ossetia (internally displaced persons, IDPs). More than half of these IDPs still live in state provided collective housing centers. Additional almost 2,000 people were resettled by the GoG in results of natural disasters and classified by legislation as *eco migrants*. Majority of emigrants and internal immigrants come from rural areas, as it was registered by the Census 2014 that rural population decreased during the last decade by more than a half a million of people. Mountainous and remote from Tbilisi and other urban settlement areas have been losing its population the most, i.e. Racha-Lechkhumi and Kvemo Svaneti (decrease of 37.4%), and Samegrelo-Zemo Svaneti (decrease of 29%) regions.

5. **Unemployment in Georgia is high.** According to the 2012 Census, 16.1 percent of the labour force is out of work. Women have higher unemployment than men: 19.0 percent against 13.6 percent. Migration to cities and abroad is at large caused by lack of decent employment and opportunities. As its shown on Figure 1, majority of those, who migrate from Georgia are men of 24-34 years old.

Figure 2: Unemployment in Georgia



Source of data: Geostat

## B. YOUTH ISSUES

6. **Youth makes about fifth of the population in Georgia.** About 40 percent of population in Georgia are children and young people up to 29 years old, and every fifth Georgian is 15-29 years old (Population census, 2014). However, the share of young people has decreased by 4 percent during the last decade. More than 40 percent of young people of 15-29 year old live in rural areas.

7. **Unemployment is an issue for youth.** Young people, especially in rural areas experience many challenges, and especially lack of decent employment opportunities. At age 29, 81.3 percent of males are economically active, against 61.7 percent of females. At the same time, almost 30 percent of young people of 15-29 year old were unemployed in 2014<sup>25</sup>, with significantly more women being out of labour market than men. Data suggests, that chances for poverty are higher in households with young people.

8. **Due to lack of off farm employment, many in rural areas are engaged in agriculture, but with limited knowledge and skills they are mostly working as labour, or self-employed as subsistence or semi subsistence smallholders.** A significant group of young people continues to work in agriculture: at age 25 – 29, 16.6 percent of males and 9.9 percent of females work as self-employed farmers. When they are motivated to increase their production, they face problems with access to finances mostly due to lack of credit history and collateral. Several state and donor funded programmes address issues of young people in rural areas through improvement of their skills to match current demands with reforming vocational professional training programmes, introducing work based learning in agricultural sector. Several NGOs work with young farmers empowering them through coaching and training programmes based on the Farmers Field School (FFS), providing matching grants while facilitating their access to loans.

## C. POVERTY

9. **Poverty is still persistent.** Georgia was classified by the World Bank as lower middle-income country with GNI per capita US\$3,810 in 2017. Poverty reached its highest level in country's history of 46.7 percent in 2010 (using international poverty line of US\$2.50/day, 2005 PPP), then decreased to 36.2 percent in 2013 and further to 32 percent in 2016 (2011 PPP). The Government of Georgia is assessing poverty level in country using two methods: i) Registered Poverty for assessing beneficiaries of social assistance programmes, ii) Relative Poverty based on median consumption. According to the GoG 20.6 percent of people lived below relative poverty line in Georgia in 2016. World Bank assessed that about 32 percent of people lived below poverty line in 2016 using international poverty line of US\$2.50 a day (2011 PPP), and another 60 percent of people are still vulnerable to poverty (WB Poverty Assessment, 2017).

10. **Poverty is more pronounced in rural areas.** Two thirds of all poor households live in rural areas, where every second household can be considered poor along the US\$2.50/day international poverty line (in urban areas poverty is considerably lower, affecting one out of every four households). The mean monthly income per household in rural areas was 92.2 GEL in 2015, making it 21 percent less compared to urban areas, where it was 1,142.3 GEL (Geostat data, 2015). The average income of those self-employed in agriculture (including in-kind consumption) is only around 20 percent of that of urban salaried workers.

11. **Poverty level has geographic characteristics in Georgia.** Different regions develop unequally, with Tbilisi, the capital, accounting for half of the country's GDP. The city-region's per capita output levels are almost twice the national average and more than three times that of the most lagging regions. However, poverty is not fully defined by administrative boundaries in Georgia. It is evident that poverty in general is lower in industrial (Kvemo Kartli) and services oriented regions (Adjara), than in agrarian (Mtskheta-Mtianeti). Poverty level is the lowest in Tbilisi and is highest in Shida Kartli and Mtskheta Mtianeti region. The latest official data gives a picture of a poverty level by region by tracking those who applied and were registered to be recipients of the Targeted Social Assistance (TSA) and on the actual recipients of the TSA by region. The Social Services Agency's

---

<sup>25</sup> Frank Eelens, Young People in Georgi: An overview based on the 2014 General Population Census Data, 2017

data for 2016 and 2017 is in line with the poverty data by regions assessed by the World Bank in 2015.

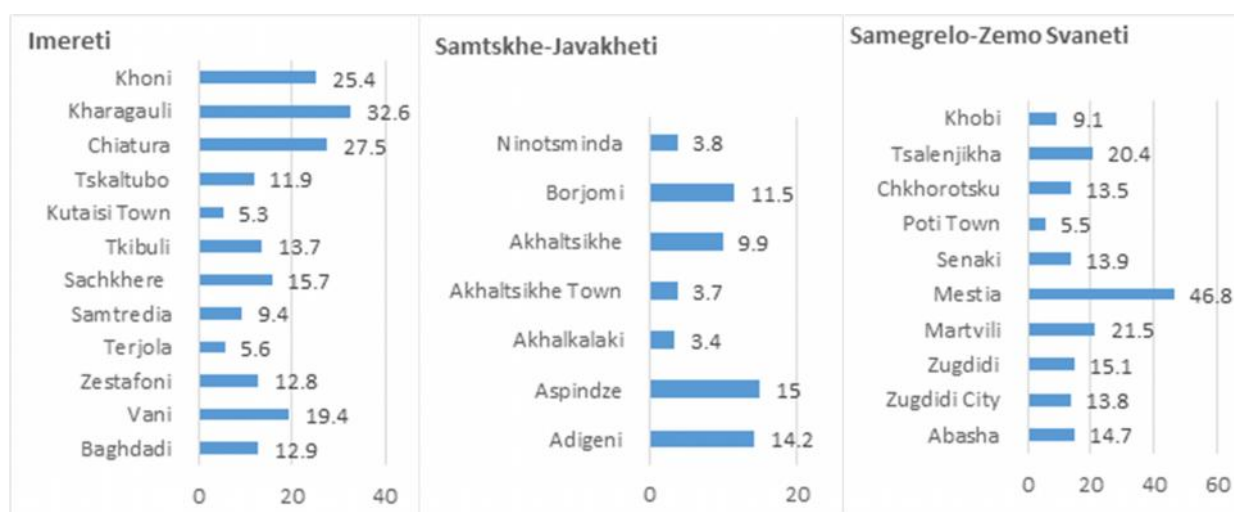
**Figure 3: People registered and recipients of the social assistance by regions in 2017 (% to regions' population)**

Regions	% of persons-TSA registered	% of persons-TSA recipients
Kakheti	34	17
Shida Kartli	36.3	18.6
Kvemo Kartli	18.9	10.1
Samtskhe-Javakheti	25.3	7.4
Ajara AR	33.5	11.6
Guria	43	16
Samegrelo-Zemo Svaneti	31.7	14.8
Imereti	30.8	12.7
Racha-Lechkhumi and Kvemo Svaneti	66.3	40.6
Mtskheta-Mtianeti	33	17
Tbilisi	15.2	8.8

Source: Social Services Agency of Georgia, 2017

12. **There is a large variation of poverty level within the regions.** The large variation of the recipients of TSA by municipalities shows various level of poverty level within the regions (Figure 3). It can be seen, that the number of poor in one municipality can range from 5.3 percent to 32.6 percent in Imereti, from 5.5 percent to 46.8 percent in Samegrelo-Zemo Svaneti, and from 2.7 percent to 15 percent in Samtskhe-Javakheti.

**Figure 4: Recipients of the state social assistance in 2017 in target regions**  
 (number of people in municipalities to the population of the region in %)



Source: Social Service Agency, Georgia, 2017

13. **Poverty has many factors in Georgia, and its higher in mountainous areas.** Geographic situation and terrain characteristics of the settlement, such as mountainous versus valley areas, remote and near large settlement areas, level of access to infrastructure and public services, and overall availability of employment and jobs are important factors of the livelihood of the community. What is the difference between three places in one region, for example Poti, where there are only 5.5 percent of population receive social assistance, Khobi with 9.1 percent of social assistance recipients, and Mestia with 46.8 percent of people receiving it in one region of Samegrelo-Zemo Svaneti? The city of Poti is a Black Sea port with a Free Industrial Zone, which is also a growing in popularity as a touristic destination, connected with Tbilisi through railway and highway. Poti municipality is located at 1-2 m above the sea level. It has about 50 thousand population, its sub-tropical climate is favorable to

grow citrus, culinary plants, hazelnuts and vegetables. *Khobi* municipality is comprised of about 21 communities with about 26 thousand people. The municipality is located at low lands, at about 9-10 meters above sea level, it focuses mostly on production of corn and hazelnuts, and livestock. *Mestia* municipality on the other hand, is located in highlands at about 1,400 meters above sea level and higher, has less than 8 thousand people living in 16 communities. Its located more than 500 km from Tbilisi and about 140 km from Zugdidi, the regional center. Living conditions are harsh with natural disasters, such as floods, landslides, avalanches and hail often taking places and destroying already dilapidated infrastructure. Animal husbandry is a major occupation for subsistence and income generation with limited number of milk collection and processing enterprises. Due to limited arable land size and climate conditions, crops are grown in limited quantities mostly for own consumption (except potatoes). The out migration is high, especially of young people.

**14. The demographic and employment factors of the household can affect poverty level of community.** The causes of poverty in rural areas include the level of education, labour market status and gender of the household head. According to the WB Poverty Assessment, the poor and bottom 40 are more likely: (i) to live in larger households with a greater number of dependents; (ii) to live in households headed by someone with less than secondary education; (iii) to be unemployed or economically inactive; (iv) to have household heads who are less likely to be in paid work and more likely to be self-employed (which is largely how subsistence farmers are classified); and (v) to live in households headed by women. Among those households where the head is unemployed, poverty rate is 24 percent as compared to 14 percent among households whose head is employed.

**15. Poor and extremely poor households in Georgia own limited land and livestock.** The TSA provides cash transfers to the most vulnerable families in Georgia, and is based on household welfare index system determining poverty level of household. Almost two third of Georgian households received at least one type of social assistance in 2011-2013. Since July 2013, the financial social assistance (living allowance) has been doubled and for one-member families living below the poverty threshold, the amount of monthly assistance was increased to 60 GEL (about US\$22.2), while in the case of two or more member families, it was increased to 48 GEL (US\$17.8) for every subsequent member. The ranking methodology completely changed in 2015. As of January 1, 2016, there were 490,958 families registered in the TSA database, out of which 129, 579 families benefited from the state financial assistance program. The welfare index system is very complex and accounts i) household's agricultural property (land, cattle, beehives, poultry); ii) property (light vehicles, trucks, tractor, combines and seeding machines); iii) income; iv) utilities' expenditures, v) demographics and education; and vi) territory (region and if settlement belongs to the highly mountainous areas). About 36 percent of poor households report no land ownership, and 50 percent of landless are extremely poor. Poor households in general do not hold cattle, and only 16,5 percent of those who live under poverty line have cattle, with no more than three heads. In order to maintain eligibility to TSA and receive monthly cash benefits, poor households often prefer not to own property, especially cattle, poultry and beehives.

**16.** According to the Economic and Social Vulnerability Assessment in Georgia conducted by the UNDP (2013), households living in mountainous areas are more prone to economic and environmental shocks. Of all households that took part in the assessment, and who have experienced at least one shock with a negative impact, 50 percent did not have the resources to resort to any mitigation strategy. This group of population, along with the IDPs, have also much lower access to education and health services, due to financial constraints. Moreover, lack of market opportunities is more pronounced among households living in mountainous areas. They are less likely to be able to raise cash and 55 per cent of the participant in the assessment claimed that it is very difficult to find a job and generate income in their area.

**17.** According to the Integrated Household Budget Survey only 16.5% of those who live under poverty line had cows, most of them 91.4% had no more than 3 cows in 2014. However, to be eligible

for state social benefits, household should not possess any livestock and thus, poor households prefer not to have livestock.

18. **Country has a high number of vulnerable groups, such as Internally Displaced Persons (IDP).** These are people had escaped conflicts or had to leave their homes in two waves: first wave was in the early nineties from the Tskhinvali Region-South Ossetia and the Abkhazian Autonomous Republic, and second wave was again in August 2008. The IDP status in Georgia is granted to the children of IDPs as well. The number of IDPs in country reached 246,974 in 2014, making them 6 percent of total population. Families displaced from Abkhazia have mainly settled in the adjacent regions of Samegrelo and Imereti, and in major urban areas such as Tbilisi and Batumi. IDPs from the Tskhinvali Region - South Ossetia are largely located in the adjacent region of Shida Kartli. The GoG provides IDPs with the one-off cash assistance, universal status-based welfare assistance that includes, among other benefits, the provision of a monthly cash allowance to IDPs. The IDP families living in extreme poverty are also eligible for a one-time cash allowance and rental assistance. However, about 80 percent of the IDPs are unemployed and still face livelihood challenges.

19. **Social transfers were major drivers of poverty reduction till 2013.** Major drivers of poverty reduction before 2013 were development of services sector with higher level of employment, and Government's social spending and subsidies. Public spending reached almost 12 percent of GDP in 2013, with social spending making about 40 percent of the amount, half of which was in a form of direct cash transfers -TSA. Coverage and benefits have been increased for the TSA almost two times in 2013. In addition, Government of Georgia introduced Universal Health Coverage (UHC) program, oriented to provide coverage for the large segment of the population without any health insurance. Together social transfers account for 50 percent of the decline in the income-based poverty observed between 2006 and 2012, and 80 percent of the decline observed between 2010 and 2012.

20. **Agricultural products sale and labour wages are becoming key factors of poverty reduction in rural areas.** The WB poverty assessment concluded that rural poverty reduction is only associated with the rural growth and growth in agricultural sector, and was not influenced by the urban growth, meaning that agricultural product sales have not increased or if they have, have not affected rural poverty levels. In addition to social benefits, the major drivers of poverty reduction have been wages, which have increased 1.8 times, sales of agricultural products, which increased 1.6 times, and income from self-employment, which increased 1.5 times during last five years.

**Table 15:** Distribution of Average Monthly Incomes per Household (GEL)

Sources of income	2011	2012	2013	2014	2015	2016	Trend
<b>Income, total</b>	<b>605.4</b>	<b>673.8</b>	<b>774.1</b>	<b>861.6</b>	<b>899.8</b>	<b>924.9</b>	
Wages	214.3	247.3	297.0	325.5	382.9	391.3	
From self-employment	54.7	66.7	72.7	75.8	81.2	80.6	
From selling agricultural production	47.1	48.0	50.2	70.5	79.7	75.0	
Property income (leasing, interest on deposit etc.)	5.5	4.3	7.5	9.1	9.0	10.0	
Pensions, scholarships, assistances	87.0	96.2	124.5	151.1	149.5	158.7	
Remittances from abroad	29.0	28.7	34.8	36.0	28.6	29.6	
Money received as gift	74.3	91.9	102.7	103.7	85.3	95.8	
Non-cash income	93.4	90.8	84.6	89.9	83.6	84.0	
<b>Other cash inflows</b>	<b>100.6</b>	<b>114.6</b>	<b>113.2</b>	<b>122.3</b>	<b>122.5</b>	<b>117.3</b>	
Property disposal	16.0	21.0	7.9	9.1	8.0	8.0	
Borrowing and saving	84.5	93.6	105.2	113.2	114.5	109.3	
<b>Cash and non-cash inflows, total</b>	<b>705.9</b>	<b>788.4</b>	<b>887.2</b>	<b>983.9</b>	<b>1022.3</b>	<b>1042.2</b>	

Source: Geostat, 2017

21. **Georgia 2020 aims to foster inclusive economic growth and reduce poverty by enhancing private sector competitiveness, developing human capital, and improving access to finance.** Georgian Government Strategy 2020 targets an average annual real GDP growth of 7.0% in 2014–2020, a reduction in the percentage of the population living below the national relative poverty line to 18% by 2020, and a decrease in the Gini coefficient to 0.35 by 2020.

22. **State subsidies in agriculture aimed at alleviation of poverty and boosting production.** Government has started to provide subsidies in agriculture in 2013 through vouchers at the amount of GEL 300 to about 600,000 farmers to access inputs and machinery services. According to the WB Poverty Assessment, growth in that period was shared across the entire income distribution, with higher rates observed for the bottom 40 percent nationally and for both urban and rural areas. The unemployment rate significantly decreased to 14.3 percent in 2013.

23. Government of Georgia funds and implements numerous other programmes in agriculture and rural development, such as **Comprehensive Agriproject**, which includes number of initiatives including **Plant the Future** (stimulate use agriculture lands by planting perennial crops), **Produce in Georgia** (aims to develop production-oriented enterprises, create new and promote existing agricultural production and processing enterprises), **Agro Insurance** (support to insurance market in the agricultural sector), **Co-financing of Agro Processing and Storage Enterprises** (facilitates the development of agriculture processing, as well as storage facilities and services), **Preferential Agro Credit Program** (access to long-term preferential financial resources/ cheap credits), **Georgian Tea Plantation Rehabilitation Program** (aimed to rehabilitate existing tea plantations, increase the level of domestic supply and enhance export capabilities), **Agricultural Cooperation in Mountainous Areas** (provides support to dairy livestock cooperatives with equipment and access to pastures), and others.

24. **The results of the state run programmes have been mixed.** Georgian Government aims to optimize agricultural production and marketing, emphasizing the role of cooperatives. Recognizing the major role of small scale agricultural production systems in Georgia, and to consolidate production and marketing, GoG adopted Law on Agricultural Cooperatives and established a specialized agency Agriculture Cooperatives Development Agency (ACDA) to promote cooperative movement under the MEPA in 2013. A registered agricultural cooperative by law should have at least five members in lowland areas, and at least three members in highland areas. According to the law, in order for dairy livestock cooperative to be qualified as dairy processing cooperative, its members should have not less than 150 dairy cows. The GoG supports agricultural cooperatives with tax benefits (tax exempt till 2018), provides them with grant funding to procure machinery and equipment, especially for meeting HACCP requirements.

25. **Providing matching grants to cooperatives boosted their establishment but might not ensure sustainability.** The number of established cooperatives has grown very fast during the last few years. However, almost all interviewed members during field visits of newly formed cooperatives stated that they were motivated to join to access grant funding provided by the Government and EU funded European Neighbourhood Programme for Agriculture and Rural Development (ENPARD). Funding for cooperatives is provided by the GoG under different initiatives based on different schemes. The trust of members with cooperative structures, and amongst each other, appears to be quite low, and they prefer to work individually or with close relatives. Cooperatives, especially those created with the support of the government and donor programme in a top-down manner, have tended to stop functioning shortly after they were provided equipment grant funding (e.g. SIDA Programme in Kakheti).

26. **Legal issues on cooperatives seems still not fully developed.** According to interviews, there are still legal issues which inhibit advancement of cooperatives development. Thus, banks do not favour lending to cooperatives considering lending to them risky, due to a lack of joint credit



history, and unclear arrangements on joint ownership of land, facilities, and equipment that might otherwise be pledged for collateral.

**27. Access to preferential loans or matching grants is a problem for smallholder farmers, especially for women.** In the course of the field visits' interviews, many smallholder farmers mentioned that they face difficulties in accessing credits resources either because they consider them to be very expensive (28 percent interest rate for micro finance loan), they lack appropriate collateral, or they have difficulty with submitting all required documentation. Women and young people face specific challenge accessing loans, since banks' collateral requirements are high and due to the patriarchal traditions, especially in rural areas, mostly male heads of households are holders of property, and permission would be required to pledge these assets as collateral, which is often not possible to obtain.

**28. State extension services are limited in outreach and private advisory is missing.** MEPA's Regional Informational Centers (RICs) were opened in all regions and serve primarily as data collection bodies for the MEPA, as well as extension services providers to farmers. These centers usually have three technical experts employed: economist, agronomist/livestock, and biologist. There are also RIC specialists at the municipality level. Each RIC identifies skills and knowledge needs of farmers and organizes trainings in the villages with the specialist from state agricultural research and educational institutions. The coverage of topics, the number of courses, and the quality of courses appear deficient, and the number of farmers attending is low.

**29. State support to the mountainous areas.** To provide support to the mountainous regions, Government of Georgia adopted a Law on the Development of Mountainous Regions. According to this law, a high mountainous settlement is a settlement located at 1,500 metres above sea level or higher. However, other settlements located at the 800 above sea level can be also eligible if they fall under various criteria which characterize high mountainous settlements (slope inclination, poor access to infrastructure, harsh climate and natural environment, lack of cropping land, the worrisome demographic and migration situations). According to this law, the entrepreneurs operating in high mountainous settlements are granted with a special status and privileges in regard to subsidized utility payments, and tax benefits. In addition, GoG initiated several state programmes supporting rehabilitation of infrastructure in mountainous areas. The status of high mountainous settlements brings to their residents the following benefits:

- monthly bonus added to the pension of at least 20 percent;
- increase by at least 20 percent of set monthly social package;
- a monthly bonus to medical employees as set up by that Law;
- compensation of 50 percent of monthly charges for electricity;
- a contribution of monthly cash assistance at the amount of at least 100 GEL for the birth of the first and second child, and at least 200 GEL for the third and following children for the period of two years;
- the provision of a bonus being not less than 35 percent of the basic remuneration of a teacher;
- the provision of an increased number of vouchers to the students of public schools, multi-sectoral public schools, and to students of institutions of vocational education located in high mountainous settlements;
- the provision of a bonus of not less than 50 percent of the remuneration of a teacher, the head of the administrative body implementing this programme.

**30.** The Law also stipulated that business enterprises and individuals will enjoy tax benefits as formulated in other relevant legislation. It is also directed establishment of Fund for Development of Mountainous Areas at the initial amount of US\$8 mln. That Fund made already 26 million GEL (about US\$10 million) in 2017. That Fund is operated by the Ministry of Regional Development and Infrastructure, and its Deputy Minister is a Chairperson of the Regional Development Commission,

which makes decision on allocation of funds. Local municipalities apply for funding, which is so far has been mostly directed to rehabilitate roads and other infrastructure.

#### D. FOOD SECURITY AND NUTRITION

31. **Poor have issues with affordability of food.** Georgia imports about 70 percent of its food. According to the Geostat data, country's self-sufficiency in wheat was 19 percent, in meat 48 percent in 2016. Country is almost fully self-sufficient in sheep meat (100%), partly self-sufficient in potato (92%), beef (79%) and dairy (82%). The major issue with food is affordability. Multiple surveys on livelihood in Georgia show that in average households spend more than half of their income on purchasing food. Poor households spend for food more than 65% of their income, and the food expenditures are higher in rural areas, and even more so in remote mountainous areas.

32. **Hunger is not a significant issue in Georgia, but still can be experienced by the extreme poor.** Hunger does not present significant problem in Georgia, with stunting prevalence in country 11.3 percent, wasting at 1.6 percent in 2015 (UNICEF, WHO and WB). Children less than five years old underweight prevalence was 1.2 percent, wasting 1.6 percent, and stunting 11 percent. However, poor and extremely poor households still experience hunger especially in winter months and more so in mountainous areas, where 13% of population experienced hunger in 2015 (Nutrition Study, Oxfam).

33. **Obesity is an issue for adults and children.** Overall, food consumption is generally sufficient in calories with average dietary supply adequacy at 116% (2014-2016), average protein intake of 75 g/day. However, consumption is characterized by low to medium nutritional diversity, average household consumes mostly 5 food groups (staples, vegetables, plant/animal oil, milk/dairy products and roots) out of the recommended 10 food groups (OXFAM). With starch and cereals dominating diet, the obesity is a problem among adult population and children, with adult obesity prevalence at 20 percent, including children at 20 percent and non-pregnant women at 42 percent (2015, UNICEF, WHO and WB).

34. **Government makes efforts to address nutrition issues.** The Ministry of Environmental Protection and Agriculture in its Agricultural Development Strategy for 2017-2020 has a focus on Food Security with the following directions: to monitor food security situation in country and provide support to subsistence farmers to reduce their risk, support further commercialization of the agriculture, and facilitate increase of income from farm wages; raising the level of country's food self-sufficiency of the country through enhancing food market stability, and diversification of import and export markets. The MEPA has developed 20 basic recommendations on food security and nutrition, and Food Security Bill was submitted to the Parliament for approval in July 2017, which further reinforced government's commitment towards these issues.

#### E. GENDER EQUALITY

35. **Demographics and social characteristics.** There are more women than men in Georgia: 52.1 percent of women and 47.9 percent of men in 2017 (Geostat, as of January 1, 2017). There almost twice as many women as men over the age of 65 (71 percent of all receiving retirement pensions are women)<sup>8</sup>. There is an evident general preference of boys over the girls, with an average 110 boys for every 100 girls born in 2015. Boys ratios at birth were even higher in rural areas (113.4 boys per 100 girls), and varies by the regions: 113 in Adjara, 114 in Kakheti, 115 in Samtskhe-Javakheti, and 116 in Kvemo Kartli (UNFPA, 2015). There were more women with higher education than men (women make 55 percent among those who have higher

##### Gender Equality in Georgia and Global Ranking

- ❖ Global Gender Gap Index (GGI) ranked 90<sup>th</sup> with a score of 0.681 out of 144 countries in 2016 (was 82<sup>nd</sup> in 2015, 54<sup>th</sup> in 2006). *For comparison, other countries in the region, such as Azerbaijan ranked 96th and Armenia 105th in the same year.*
- ❖ Equality in educational attainment (sub index of GGI) is 78<sup>st</sup> in 2016 (was 41<sup>st</sup> in 2006)
- ❖ Economic participation and opportunities (sub index of GGI) – 61<sup>st</sup> in 2016 (was 41<sup>st</sup> in 2006),
- ❖ Health and survival - 119<sup>th</sup> in 2016 (was 115<sup>th</sup> in 2006)
- ❖ Political empowerment – 114<sup>th</sup> in 2016 (was 59<sup>th</sup> in 2006).
- ❖ The United Nations Gender Inequality Index (GII) rank 81st out of 148 countries in 2012, and already 76th in 2014
- ❖ 67<sup>th</sup> with a score of 49.2 (100 score is most favorable) in Women's Economic Opportunity Index in 2015

education) and at the same time there are more illiterate women than men (54 percent of women among all illiterate) in 2015.<sup>26</sup>

36. **There is a significant number of women headed households in Georgia.** Nearly 31 percent of the family holdings were headed by women in 2014 (Agricultural Census, 2014). Women household heads are less likely than men heads of comparable households to be employed and 30 percent of such households fall under the 40 percentile of poor (WB< Poverty Assessment, 2016). Households headed by women are more likely to be poor than those headed by men (Geostat, 2013). Interestingly, however, having more women in the household is associated with a lower risk of poverty.

37. **Women in Georgia are self-employed, engaged in agriculture but mostly as unpaid household labour.** Although women's access to education is high, it is not yet reflected in their overall employment and economic participation. About half of economically active women are not in the labour force. It is evident that responsibility for child caring and household errands in Georgia falls disproportionately on women, with 17 percent of women in economically active age being housewives. Due to prevailing traditional gender stereotypes, women are rarely engaged in activities outside the household. This situation is nearly the same in all regions, with increased exclusion (due to language and cultural barriers) for women in areas populated by ethnic and religious minorities.

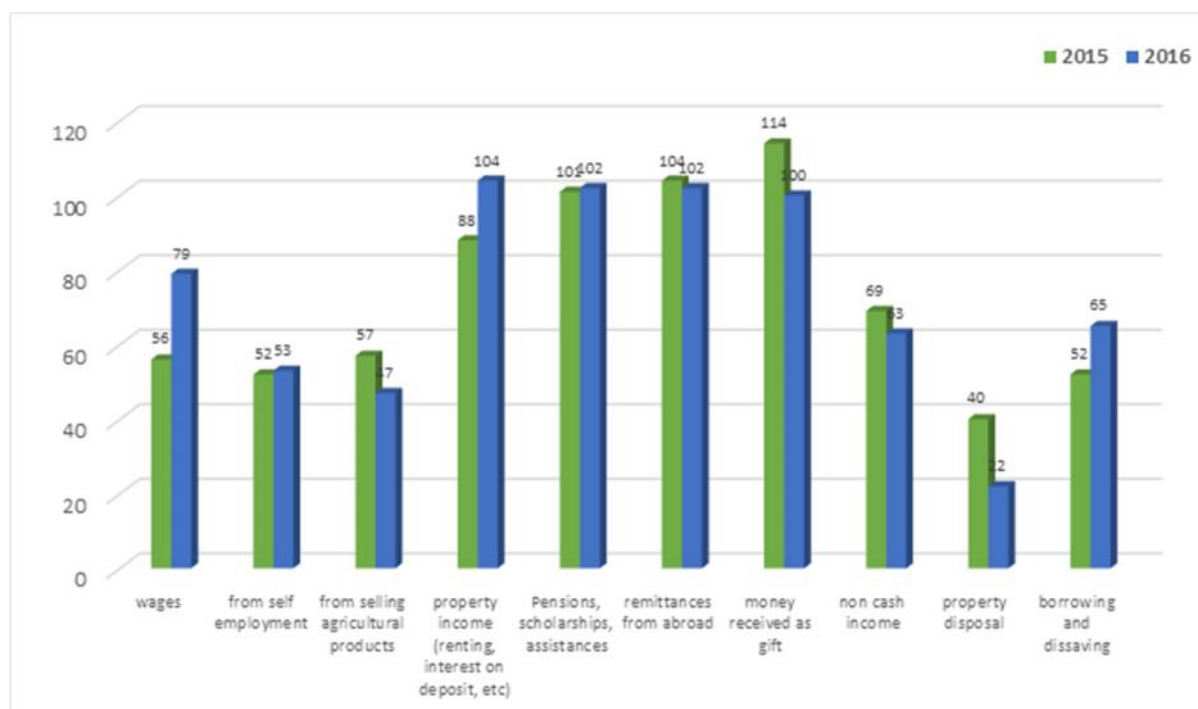
38. **Women are concentrated in the informal sector and lower-paying part-time work** (health care, education, and subsistence agriculture). Almost two-thirds of employed women are self-employed and about 50 percent of all employed women work in agriculture. On average, women engage in agricultural work 80 days more than men do, yet their involvement is mostly as unpaid labour. The 2010 USAID gender assessment reported that women and men had distinct and often unequal roles. The study revealed that farms were generally owned and managed by men, and that most female farm owners were over 60, suggesting that "women farmers are less likely to be running farms for commercial purposes."

39. As its shown on Figure 5, women headed households receive slightly higher *overall* income than men headed households mostly from gifts, property disposals, such as rents and interest rates on deposits, remittances, and from social benefits. However, *sustainable* incomes, such as from wages and self-employment, from sales of agricultural products are significantly lower than of men headed households.

---

<sup>26</sup> Population Census, 2014. Geostat.

**Figure 5:** Share of average monthly incomes of women headed households compared to men headed households in 2006 and 2016, %



40. **The gender pay gap in Georgia is still pervasive.** Although the average difference in monthly remuneration between men and women has decreased from 2012, it is still high, making female's remuneration about 44 percent lower than men's (Geostat, 2016). The difference is smaller in agriculture, where average female remuneration is about 20 percent lower than of men.

41. **Challenges for women's economic participation.** Women have little involvement in economic decision-making within the family and do not have the same rights and responsibilities as men do. The major challenges relate to high domestic workload, lack of childcare support services, especially in rural areas, unequal access to assets and resources, as well as traditional patriarchal and in some cases religious attitude to working women.

42. **Women enjoy the same property inheritance rights as men in legislation but not in practice.** Under the Civil Code, women enjoy rights to conclude agreements on their own behalf, and to own, manage, and dispose of property. Women may independently apply for and receive credit/loans. The Civil Code also guarantees that spouses enjoy equal rights to personal items and share household responsibilities within a marriage. Property acquired during the marriage is common property, unless otherwise agreed in a prenuptial agreement. The sale of marital property requires the consent of both spouses. Spouses may also have separate property, such as property acquired by one spouse before the marriage, property acquired as a gift during marriage, and personal items acquired during the marriage. Upon divorce, spouses are entitled to an equal distribution of the marital property, unless otherwise agreed. A court may deviate from this principle in the best interests of the children or one spouse (IHFHR 2000). At the same time, the tradition in Georgia is that boys inherit property from parents and men is a holder of family property, women and girls are often secondary heirs with fewer rights. That is especially a constraint for women in accessing loans and they face an additional burden in finding the collateral needed to obtain credit and business loans.

43. **Women in Georgia are actively engaged in the livestock sector.** The mean annual number of days that women are engaged in the animal husbandry value chain is 260. For men, the number is significantly smaller: 166. Women are engaged in milking animals twice a day, processing and often

marketing dairy products. Women who live near markets, are in charge of selling dairy products, while in remote villages, usually men take dairy products to the markets (if there are no middlemen collecting dairy products in remote villages). Also, when men are absent, women are also engaged in feeding animals and cleaning animals' sheds. Men are mostly engaged in livestock activities which require physical strength, such as cleaning sheds, ensuring insemination and animal health, grazing animals, slaughtering and marketing meat.

### **Voice and Agency**

44. **Women are poorly represented in country's political system.** Women constituted only 11 percent of the members of Parliament and 16 percent of ministers in 2015. The share of women judges on the Constitutional Court is 33 percent. Only 34 percent of legislators, senior officials and top managers in Georgia were women in 2015. Representation of women in the local level councils (*sakrebulo*) makes in average 9 percent, though in some areas there can be no women-members of the council. Less than 15 percent of local councils were headed by women, and less than 40 percent of top positions in local government (*gamgeoba*) were held by women, who were dominating in health, education and social services branches were held by women in 2015 (UN Women, 2016).

45. **In practice women's participation in decision making is still weaker than of men.** Despite laws protecting women's access and rights, women in Georgia often lack information about their rights and, as a result, tradition, customary law and religious law shape attitudes and behaviour.

### **Gender Equality Policy and Legal Framework**

46. **Women enjoy equal rights in legislation of Georgia.** Legislation does not discriminate women. The Constitution of Georgia guarantees equal rights to men and women. A Gender Equality Law was adopted in 2010 and aimed to ensure women's security, equality in the labour market and the strengthening of women's political participation. The Law established the Advisory Council on Gender Equality which is tasked to monitor the implementation of national action plans on gender equality, check the gender component of legislative acts, make recommendations and provide annual reports to the Parliament. The Law also states that local self-government bodies along with central legislative bodies are obliged to ensure identification and elimination of discrimination based upon sex. The budget, socio-economic development priorities, municipal programmes and plans of local self-government bodies are to be implemented in such a way as to exclude any kind of discrimination based upon sex.

47. The Non-discrimination Law was adopted in 2014. This Law states the principles of equality and non-discrimination on the basis of gender identity and sexual orientation along with race, colour, language, national, ethnic or social belonging, sex, pregnancy or maternity, marital or health status, disability, age, nationality, origin, place of birth, place of residence, internal displacement, material or social status, religion or belief, political or any other grounds. The Law includes the principle of equality established by the UN Convention on the Elimination of all forms of Discrimination against Women, according to which temporary special measures developed in order to achieve factual equality shall not be considered discrimination. Georgia ratified the Convention on the Elimination of All forms of Discrimination Against Women (CEDAW) in 1994, and the Optional Protocol to CEDAW in 2002. The country is a member of the Council of Europe, and ratified the European Convention on Human Rights in 1999.

48. **Government of Georgia has adopted the Gender Equality Strategy for 2014-2016 years and an action plan associated with it.** Activities/directions under the agriculture include increased women involvement and decision making; increasing women's qualification and awareness; promoting women involvement in agribusiness and cooperatives. The Geostat publishes gender-disaggregated data for every major sector in Georgia. It also provides various data on female-headed and male-headed households, as well as gender breakdown of agricultural data.

49. **Women play an important role in livestock sub sector.** Women in Georgia are engaged in livestock with milking, processing and sale of milk and dairy products. Small scale producers are increasingly interested to sell fresh raw milk rather than use it to produce and sell cheese because of the intensive labour required. Interviewed men and women stated that making cheese takes significant time (about 2-3 hours daily) and efforts. Analyzing the experience of women in the livestock sector experience has generated important lessons. Support to women engaged in livestock value chain in Georgia has been provided through different means. Thus, one of the important targeting of women has been through organizing training and awareness for them in relation to HAC P system. Since women play a key role in home based dairy production and processing, it is crucial for those women who would like to continue to be engaged in commercial dairy production to adopt HACCP principles to be able to market, although the investment required for compliance to the new food safety laws will be a significant barrier.

50. Various research showed that women in Georgia tend to have lower access than men to information, extension services, financing, and technology. They are also timid about approaching local and central government bodies to acquire information and services. Mercy Corps funded by the SDC have facilitated opening 28 Women's Rooms in local administration offices in Kakheti and Samtskhe- Javakheti regions to serve as resource centers for women to access Internet, to have meeting and trainings, as well as just to leave children while using public services. Mercy Corps in Samtskhe-Javakheti use this room to conduct training for women on English language, on computer literacy. Local NGOs use these rooms to conduct awareness on HACCP norms.

51. Reaching women in Muslim or other conservative communities requires more effort and specific approaches. For example, it was reported that among Azeri groups living in Georgia, some husbands objected in general to their wives taking part in small business start-up programs, but were more accepting of projects that allowed women to work from home and supplement their incomes.

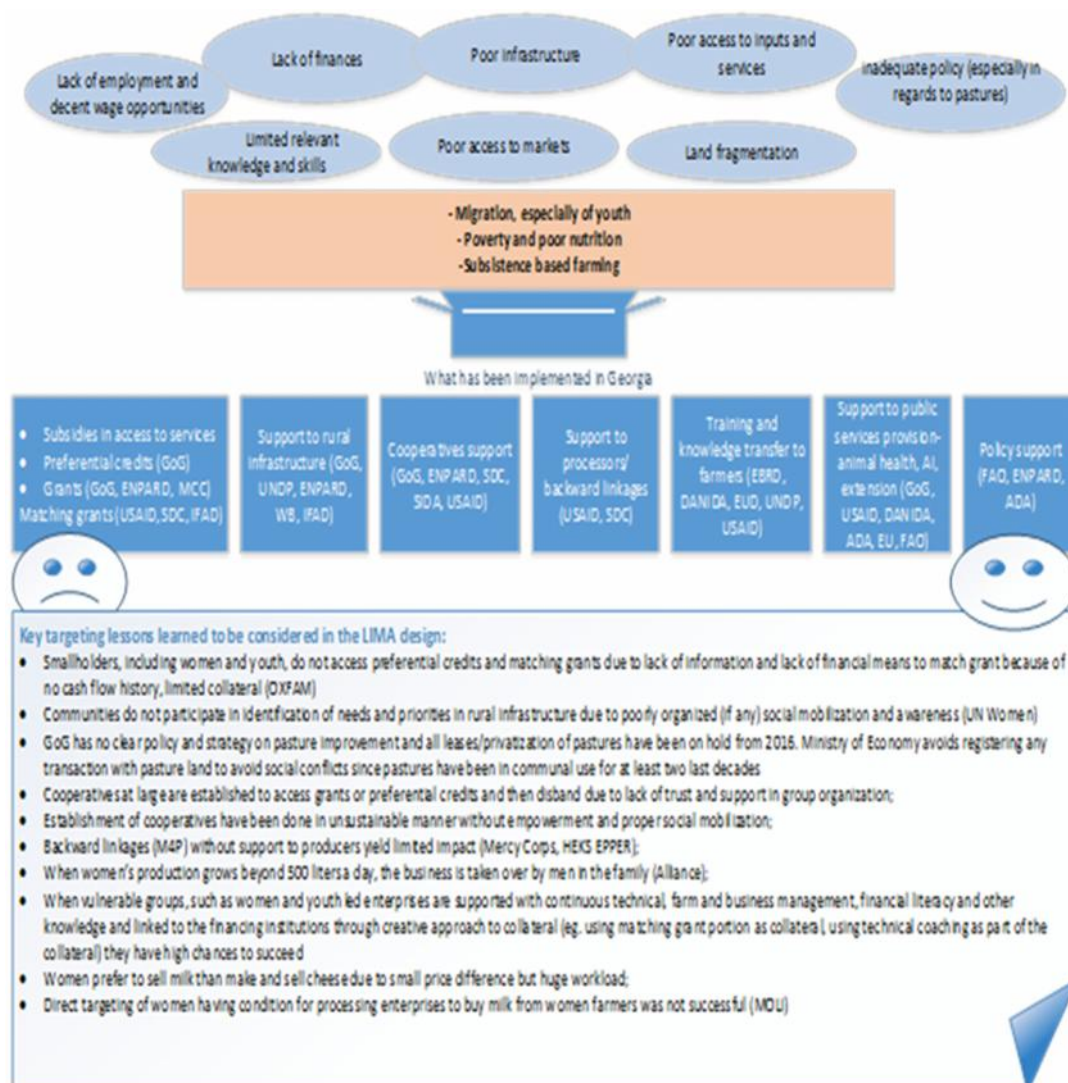
Gender focus and mainstreaming are still important in Georgia. Entrepreneurship is seen in Georgia as a crucial option for women to gain a livelihood. Obstacles in Georgia include (i) lack of appropriate skills, information, and familiarity with the business environment; (ii) questions of self-confidence; (iii) lack of networks; (iv) aversion to risk; and (v) inexperience in running a business. The 2014 Georgian Employers Association Report on "The Current State of Development of Women Entrepreneurship in Georgia" identified clear needs for capacity building among businesswomen, especially on basic principles of BPning, development and management; finances, budgeting, accounting, legal and regulatory issues, international trade rules; market analysis, product development, marketing, communications, distribution, logistics.

## II TARGETING STRATEGY

### A. Targeting Rationale and Lessons Learned

52. **The targeting strategy is based on country and sector's context and lessons learned.** This strategy was developed based on the issues and challenges in the livestock sector faced by the poor and smallholder farmers, as well as specific needs and priorities of vulnerable groups, such as youth and women. There have been many interventions in the livestock and rural development sector undertaken by the Government of Georgia (GoG), NGOs and donor funded projects, which have generated rich lessons learned (Figure 6).

**Figure 6: Challenges in livestock sub sector, and lessons learned in terms of targeting of smallholder farmers, especially youth and women**



53. Considering the DiMMA objective, as well as political, demographic and social context, the targeting strategy has been elaborated to ensure that programme's services and products are available not only to the progressive lead farmers, who would be able to drive overall agricultural productivity gains and transformation, provide examples to demonstrate the viability of new transformative approaches to increase rural resilience, but also to other groups of smallholder farmers, who with the Programme support can improve their incomes and gradually grow into commercial farming.

54. **Key concerns and lessons learned.** The targeting strategy was developed after a review of key concerns related to the smallholder livestock farmers in Georgia, such as poverty, outmigration of youth from rural areas to cities and abroad, reviewed women's role and interests in the livestock sub sector, proposed governance mechanisms to ensure inclusiveness. The targeting strategy is developed based on the findings of the preparation mission in 2016, the detailed design mission of 2017, and from the learning from previous IFAD financed programmes' experience in Georgia. The Country Strategy and Programme Evaluation (CSPE) for Georgia, conducted in 2017 concluded that "IFAD interventions weakly targeted the poor, women and the marginalised" so far and youth has never been explicitly targeted. The evaluation concluded that the performance on gender has been below average, women were not targeted, and measures were not taken to raise their participation. One of the issue raised by the CSPE was that gender related systemic issues were not recognized

and addressed (e.g. gendered access to resources, land). Lessons accumulated by the Government of Georgia and other development partners in the livestock sector in regard to targeting have been also considered and reflected in the DiMMA design.

55. **Poor and extreme poor non commercially oriented will be indirect beneficiaries of the DiMMA.** The Government of Georgia is aiming to target commercially oriented smallholder farmers to ensure agricultural and overall economic growth, enhance competitiveness of agricultural products to increase self-sufficiency. Direct targeting of the poorest segments of rural population was recognized as not a viable option in Georgia, due to their very limited commercial potential and weak interest in developing such potential, preferring to maintain access to social benefits. However, the poorest segments of rural communities will still indirectly benefit from the DiMMA outcomes.

## B. Targeting regions

56. **DiMMA Programme targets regions leading in number of agricultural holdings with the dairy cows.** The DiMMA activities will be focusing on improved access to the dairy markets and will be limited to three regions: Imereti, Samegrelo-Zvemo Svaneti, and Samtskhe-Javakheti (out of nine regions and one autonomous republic). There are 1,315 rural settlements in these regions with almost 600 thousand people, and 116 thousand holdings with livestock (Table 2). Thus, the Programme will cover 36 percent of all rural settlements and more than half of a country's total rural population. While these regions are not the poorest in country, poverty level there is still high, especially in remote and mountainous communities, as it was shown earlier in Figure 3.

57. **Half of all country's holdings with dairy cows reside in three DiMMA target regions.** There are 271,118 holdings with cattle, including 235,197 with dairy cows in Georgia (2014). Almost half of them reside in DiMMA Programme target regions: Imereti, Samegrelo-Zemo Svaneti, and Samtskhe-Javakheti (Table 2). There are 48 percent of cattle and 46.4 dairy cows in three DiMMA Programme target regions.

Table 16: Target regions' population and livestock, 2014

Regions	Number of Rural Municipalities	Number of communes	Number of villages	Population	Holdings with cattle	Cattle	Dairy cows
Samtskhe-Javakheti	6	85	259	105,841	19,348	122,899	59,105
Imereti	11	163	535	275,936	52,046	168,037	86,315
Samegrelo-Zemo Svaneti	8	143	521	201,370	45,216	186,031	88,815
	<b>25</b>	<b>391</b>	<b>1,315</b>	<b>583,147</b>	<b>116,610</b>	<b>476,967</b>	<b>234,235</b>

Source: Geostat, Agricultural census, 2014

## C. DiMMA beneficiaries:

58. **DiMMA Programme will have four major groups of direct beneficiaries:** i) smallholder livestock farmers with 1-20 herd of cattle that are interested in commercializing their operations, including the model progressive farmers who provide services, inputs, and will be the focus of most training and technical assistance activities for smallholder farmers +PUAs; ii) service providers, iii) small and medium dairy enterprises and iv) smallholder farmers that will not comply to EU regulation on dairy products and are willing to diversify their activities. Overall, the total number of the DiMMA direct beneficiaries will be at least 6,740 smallholder farmers (approximately 16,500 people in 5,000 households). The programme will have installed measures to ensure that women and youth are also included, particularly through the diversification activity, and will target those who are committed and interested to improve the quality of production of their livestock. A detailed breakdown of DiMMA target groups is shown in the table 17 below.



**Table 17: Targeting of producers**

Size of cattle holding	1 to 4	5 to 20	20 and +	TOTAL
Total programme area	79,961	34,929	1,720	116,610
% of total	69%	30%	1%	100%

59. Part of the 1-20 cattle target group are subsistence farmers, produce milk for home consumption and by tradition, not ready to invest in intensification. For those farmers and for other non-dairy farmers located within the programme area, the programme will provide grants to support the diversification of their activities. Only part of the 1-20 cattle target group will be able to comply with new regulations and access the modern raw milk market. Within this group, DiMMA will target only those that have the desire and commitment to engage in diversified dairy commercial activities. Farmers with 1 to 20 cattle will form DiMMA's primary target group. Farmers with 20 and more, are not included in the target group, as they can be supported through other channels, i.e., EBRD. The programme targets 3,820 HH out of 35,000 HH in total in programme area (320 progressive farmers for demonstrations and 3500 smallholder farmers).

60. **Smallholder livestock farmers with 1-20 head of cattle.** More than 90 percent of agricultural production in Georgia is concentrated in family holdings. About 98 percent of the agricultural holdings in Georgia are family farms: there are approximately 640,000 family farms, but only 2,200 legally registered agricultural entities (Agricultural Census, 2014). In the course of the ten years from 2004-2014 the number of family farms has decreased by only 12 percent and very small number of agri business enterprises has been started, land and farm consolidation to date has happened very slowly. The average number of cattle per household is 1.54 (Geostat, Agricultural Census, 2014). The overwhelming number of households (94 percent) have less than 10 cattle, and only 103 holdings have more than 100 heads, with about half of them located in Kakheti region. In the DiMMA target regions, more than half of all holdings have less than 5 cattle, 52.7 percent in Samtskhe-Javakheti, 88 percent in Imereti, and 95 percent in Samegrelo-Zemo Svaneti. This data is probably changed since 2014, there are more holdings with the significant number of dairy cows, and there is substantial under-reporting of cattle, but these figures still provide useful reference being official data of the Government of Georgia.

61. The livestock smallholders in Georgia can be generalized into two major types amongst the 1-20 cattle target group: **Smallholder with 1-4 cattle (approximately 69 percent of all smallholders in target regions)**, who are mostly subsistence/semi-subsistence farmers or people who have other sources of income and use milk for own consumption with sale of small surpluses. Most of them are not ready to invest in intensification, and only part of them will be able to comply with new EU based regulations and access to modern raw milk market. Some of them are commercially oriented, focused on milk production for commercial purposes, and their livelihoods depend on these activities. They either sell milk or dairy products (*naduri*, *matzoni* or cheese) produced at the farm either through middlemen/milk collection entrepreneurs or at the open market. These smallholders use communal pastures in winter, but also in some cases in summer, grazing livestock in turns with other livestock owners (*nakhiri*), but also increasingly grow fodder, purchase feed from other farmers or from the stores/mills.

62. Results of the Integrated Household Budget Survey (IHBS, 2015) conducted by Geostat show that the percentage of people who are employed with fixed salaries is highest among those who own less than 5 cows. Analyzing data of several surveys conducted within the IHBS, and under the AMMAR and ASP projects, the other key characteristics of this group are the following:

- ▶ Many of these farmers/rural residents are poor, unemployed or formally registered as self-employed, or engaged in seasonal agricultural work as hired labor. This group of rural residents heavily depends on cash transfers: social benefits provided by the state (pensions, TSA), remittances from the relatives.

- ▶ These households have small land plots, which they use to grow crops for own consumption only. Usually these are very small land plots of 0.2-0.4 ha. More than 73 percent of household holdings in Georgia have less than 1 ha of land in ownership;
- ▶ These households have other livestock, such as 1-2 pigs, and 10 chickens in average.

63. These livestock holders will likely continue to own few cows for own consumption even when EU food safety, hygiene, and animal welfare regulations would be enforced.

64. This type of smallholders if desired and able to meet set criteria for commercially oriented farmers can participate in all Programme activities, such as training, coaching, as well as brokerage with financial institutions. The programme will especially target this group to develop economic activities, outside of livestock to support their farming diversification. They will also benefit from the Programme indirectly through:

- Improved access to community summer pastures;
- Improved access to and better markets for raw milk
- improved access to and quality of services such as AI, animal health;
- improved access to inputs, such as feed, animal health;
- availability of permanent and seasonal jobs;
- availability of new knowledge and technologies to be disseminated by the model progressive farmers.

65. **To ensure that those who have less than 5 cows** also included in the DiMMA Programme activity, there will be a condition imposed, it is expected that those with 4 or less dairy cows should constitute not less than 30 percent of the Programme's direct beneficiaries.

66. **Smallholders with 5-20 cattle (about 30 percent of all smallholders in target regions)**, who are more progressive farmers conducting fully commercial activities. They also graze livestock at winter and often summer pastures depending on their location but supplement feeding with grown and naturally harvested hay from pastures, and other feeds produced or purchased from suppliers. These farmers sell milk either to middlemen, aggregators or processors. But some still prefer to produce *matzoni*, *naduri*, *sulguni* or *imeruli* cheese and then either supply to local stores or sell at the open markets, although these opportunities will be greatly constrained by the implementation of food safety and animal welfare regulations.

- ▶ These farmers/farms usually have other commercial agricultural activities, such as horticulture, growing apples, peaches, walnuts, hazelnuts, etc.
- ▶ These farmers/farms have improved breeds, some use artificial insemination (AI) to improve productivity, use veterinary services; use concentrated feed in winter, employ hired labor for taking care of animals and milking cows.

67. The two types of smallholders described will be **key** direct beneficiaries of the Programme and will be targeted with technical, financial and business training and coaching, access to finances for investments, as well as access to summer pastures through improved roads and pasture management knowledge and planning. They will also benefit from the Programme indirectly through:

- Improved access to community summer pastures;
- Improved access to and better markets for raw milk
- improved access to and quality of services such as AI, animal health;
- improved access to inputs, such as feed, animal health;
- availability of permanent and seasonal jobs;
- availability of new knowledge and technologies to be disseminated by the model progressive farmers.

68. **The progressive farmers** will come from the type of smallholders with 5-20 cattle, and will become service/input providers or coordinators, raw milk aggregators, as well the focus of much training and technical assistance activities. They will form the demonstrations group with **priority focus on targeting youth**.

69. **Service providers.** It is expected that **75% of all these service providers will be young people** (as described in table 4) up to 35 years old men and up to 40 years old women. **At least 30 percent of service providers** (animal health and AI) will be women, working as para vets. Women often take care of animal health in Georgia, especially in winter. At the same time, they have lack of knowledge and limited access to information on veterinary issues, preventive and treatment methods and drugs. There is overall shortage of veterinarians in Georgia, and especially in remote areas. And there are only few women -veterinarians, who mostly work with pets. That makes women- livestock farmers vulnerable and limit their access to knowledge and skills upgrade. They are rarely engaged in animal health training and programmes, which focus mostly on men. Patriarchal traditions often prevent women, especially in remote rural areas to attend such training, or to request help from male veterinarians for animal health advice or drug information. At the same time, there is a growing number of women in Georgia who act as *de facto* para veterinarians. These are women with basic knowledge and skills about animal health, who open a simple vet drugs shops from home. They are often a source of information on animal health for other women in the village. NGOs implementing projects have identified such women para vets in target villages and engage them in the activities aimed at service providers. As well as male para vets they will be linked with trained veterinarians and inputs suppliers, engaged in specialized animal health training and capacity building on business management and financial literacy, and will be able to access small scale matching grants for expanding their input shops. These women will undergo special training on issues, which are usually of high concern for women such as better nutrition, and zoonotic diseases prevention, and in addition to act as service providers, they will be disseminating information on these issues in target villages.

70. This type of target group will benefit from the Programme through:

- Access to new technical and business knowledge and skills, and innovations;
- Access to Programme and commercial financing with brokerage.
- Business linkages to potential suppliers and customers

71. **Dairy marketing and processing enterprises.** Programme will target existing small (less than 500 liters a day) and medium scale (capacity of up to 5 tons per day) milk collecting and processing enterprises. Another requirement should be that these enterprises should collect milk from smallholders (at least half of their milk should come from Programme's target group).

72. This type of target group will benefit from the Programme through:

- Access to new technical and business knowledge and skills;
- Linking with producers and enterprises;
- Improved quality and quantity of milk to be collected;
- Access to Programme and commercial financing with brokerage.

73. The larger national industrial dairies will not be beneficiaries of DiMMA, but the programme will seek to work closely with them, and to develop partnerships (using a 4P or similar approach) with them to encourage and leverage their investment in rural milk collection, input and service provision, technical assistance

74. **Youth (men up to 35 years and women up to 40 years old as it is defined under the on-going AMMAR Programme) will be a target beneficiary in all DiMMA activities.** Young people will have preferential treatment in selection of all beneficiaries. As it was emphasized before, it is often difficult for young people to access various programs and interventions due to the patriarchal traditions, shortage of knowledge and experience, lack of capital and collateral, as well credit history. They face even more challenges in rural areas of Georgia. At the same time, young people are

interested in acquiring knowledge, keen to try innovations and willing to take risks to increase production and improve livelihoods. There is a growing number of young people in Georgia, who are engaged in farming, small scale services provision, either through establishing small shops or providing mechanization services. The average age of households involved with dairy farming is increasing over time, but the innovations to be introduced by DiMMA that reduce long and difficult labor tasks will make dairy farming and service provision more attractive. This vulnerable group will be engaged in all Programme activities and the details of their inclusion will be spelled out in the detailed design document and the PIM. Some key targeting measures are given below.

75. **Women.** Women engaged in livestock and women led households/farms comprise another vulnerable group, which is cross cutting in all types of beneficiaries and which requires special support to be included in and benefit from the Programme. Since they play an important role in livestock rearing at the household or farm level, though mostly as labor, the DiMMA is a great opportunity to increase their knowledge, raise incomes and improve their livelihoods. While not in great numbers, women are present among commercially oriented farms in Georgia, as well as among service providers, such as veterinarians, and para vets. There are women in Georgia who set up small, sometimes even home based veterinary medicine stores in remote villages. These women can be trained as para vets and provided support to be linked to larger animal health inputs suppliers and access financing to increase investments. Women also can be targeted as small scale producers, especially in supporting premium quality cheese production in touristic areas. As with youth, women experience difficulties due to patriarchal attitudes with limited access to decision making at the family and community level, have limited resources and assets to increase and improve production. Targeting measures will be specified in detail in the Programme detailed design document and in Gender Strategy, while major principles are outlines below in Section III.

## II. Targeting measures

### Geographic targeting

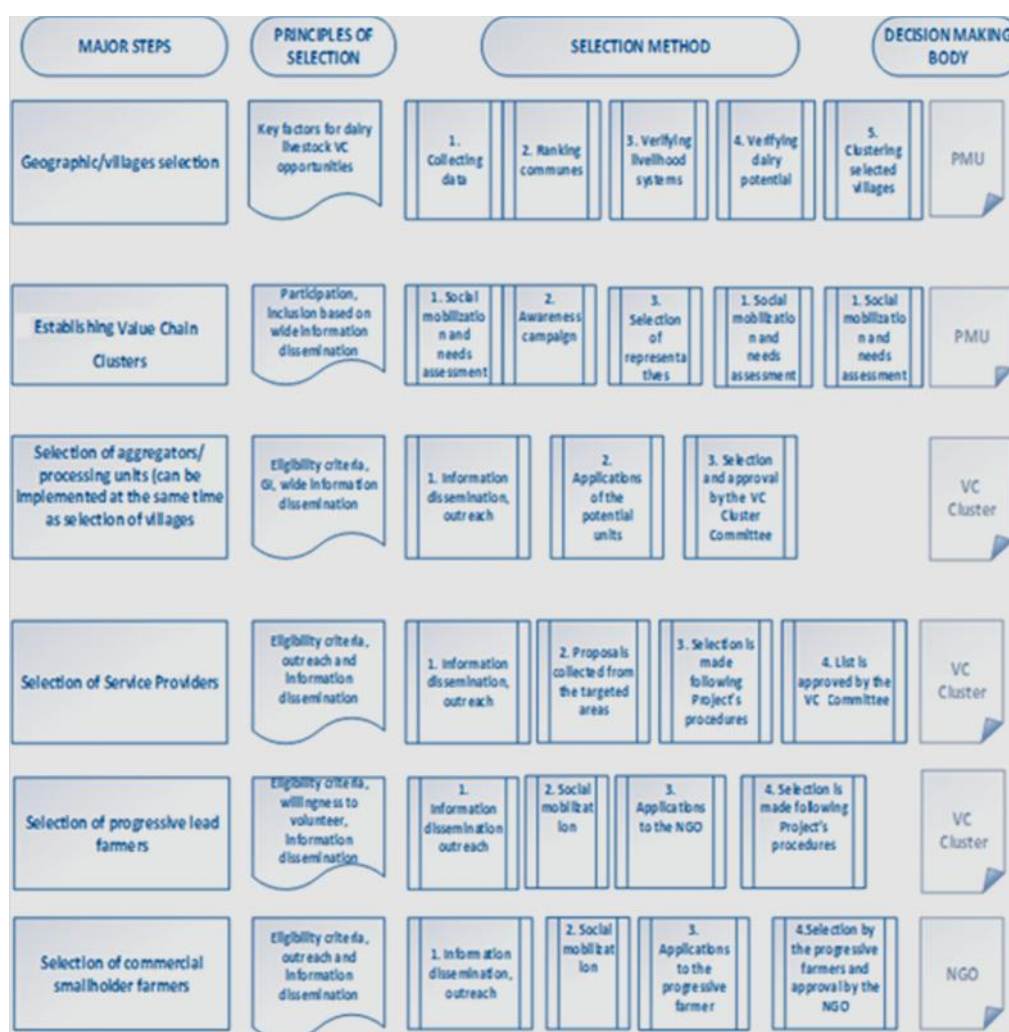
76. DiMMA Programme will target 15 value chain clusters (grouping villages under municipality, possibly following old administrative territorial division) in three target regions. To determine the effective area of programme intervention, at start-up the programme will conduct a rapid assessment that will result in the definition of 'poles of demand'- either a town within each programme district or a transport axis – and of the clusters in surrounding areas where producers and other value chain actors are located. Clusters will be characterised by a geographic concentration of interconnected producers, businesses, suppliers, and associated institutions in the dairy value chain. This will provide the basis for defining the effective programme area in terms of accessibility and viability from an economic perspective; as well as tailoring the local level programme activities to the specific circumstances of the cluster in question. Six clusters will be defined at the very beginning of the programme, 2 in each region for demonstration activities. The non-extraction livelihood activities will be available for poorest communes, ranked by the number of TSA recipients and which have low potential for dairy development and the greatest potential for non-dairy enterprises. Protected areas and National parks will be excluded from the geographic targeting to be in line with the SECAP note (Appendix 12).

77. The detailed targeting will be elaborated in the PIM, however it is suggested to rank all communes in target regions along the key criteria: i) ratio of dairy cows of commune to number of cows in the region to identify location with high potential for development of dairy livestock; ii) number of dairy cows per population to ensure existence of larger commercial smallholder farms in selected commune with up to 15 cows; iii) ratio of pasture and arable land per cow in commune to identify those with most feeding base resources available for natural grazing and fodder growing; iv) ratio of arable land and pastures of one commune to the total area of arable land and pastures in the region to select communes with higher potential.

78. The Programme implementation team can use this data by multiplying these numbers, generating a list of potential communes in priority order. An example of such ranking is shown in Table 3. This can be then validated against information on importance of livestock in the livelihood systems in each commune, since population of some communes are more interested in working in industrial enterprises located in neighboring towns, or engaged more in horticulture and cropping. This data was not readily available during programme design but can be obtained from the municipalities. Such process would ensure transparency and predictability of selection results, would generate a list of villages which have highest potential and can be targeted in priority order. A detailed methodology for prioritizing the villages will be specified in the PIM.

79. **Selection of beneficiaries.** Selection of beneficiaries will be based on a wide awareness campaign to be conducted on the opportunities provided by these Programme’s services and benefits, as well as support will be rendered to generate broad based demand and formulation of proposals and applications to tap into Programme’s services and products. The Implementation Support NGO assisting the PMU will be conducting information dissemination about the DiMMA through regional workshops with participation of key stakeholders. Information dissemination about the Programme and its potential activities will be also outreached to the selected target clusters of the villages (communes). Social mobilization to form Value Chain Clusters will be also used to disseminate information. All major steps and methods are presented in Figure 8.

**Figure 7: Selection of beneficiaries**



### **Targeting of vulnerable groups: youth, women, poor/subsistence farmers**

80. Self-target methods will be employed through application process of all types of beneficiaries to the local platforms and the Implementation Support NGO. **All interested smallholders** should participate in the technical, financial literacy and business management training.

81. The selection to be conducted for Programme support, such as matching grants, will be guided by process description and eligibility criteria described in Appendix 4 and further detailed in the PIM: i) clear eligibility and selection targeting criteria of enterprises (e.g. Monthly volume of processing milk), ii) targeting criteria for smallholder farmers through encouraging processing and input supply enterprises to work with smallholder farmers (percent of smallholder farmers among milk suppliers, percent of women – heads of households/farm supplying milk, and etc); iii) limited size of grants with clear requirements for matching finances; iv) encouraging investments affordable and attractive to smallholder farmers, such as milking machines, barn improvements, balers, small scale milk collection, storing, processing machinery; v) size of grant depends on number of smallholder farmers engaged in supply of milk (e.g. the MOLI Programme allows 100 Swiss francs per farmer served)

82. Mobilization of beneficiaries. Projects in Georgia usually conduct mobilization of potential beneficiaries with support from local self-government bodies, which either form lists of potential beneficiaries, or organize meetings at the municipal level inviting potential beneficiaries. Some also organize village level meetings using Programme mobilizers/facilitators. To prevent elite capture and conflict of interest, the Programme will restrict government or public service employees from being beneficiaries of matching grants.

83. IFAD, together with the government, and other partners, will ensure that outputs, outcomes and emerging impact are regularly monitored to ensure that they reach the identified target groups and are of continuous relevance to them, and that benefit leakage is contained. Targeting effectiveness will also be assessed by all evaluation exercises, including mid-term reviews/evaluations. Supervision and implementation findings will be reported regularly, including through the Results and Impact Management System and annual programme performance reports.

84. Subsistence farmers, especially young people and women as mentioned earlier, do not have significant number of cattle and capital, and will find it challenging to transition to a more commercial approach to farming as a business. Without specific measures, there is a high risk that they might not be able to benefit from the Programme. While appreciating the GoG intention to focus on the more progressive farmers as the engine of modernization, the transformation of dairy sector to industrial scale is likely to take a considerable period of time. Meanwhile supporting small-scale producers will have benefits for the sector in the medium-term, and will reduce risk of falling vulnerable smallholders into the poverty. DiMMA will employ self-targeting mechanisms, since livestock has high engagement of women and youth.

85. Youth targeting. Setting targets on participation of young people in Programme's activity and monitor implementation through disaggregated data. DiMMA will apply the same age criteria for young people as an ongoing AMMAR Project: men up to 35 years old and women up to 40 year old. Setting a target will provide additional incentive for programme implementers to make a good faith effort to reach youth (see Figure 9). It is recommended to set up a minimum target of youth participation reaching at least 30 percent across all types of beneficiaries. Young people have interest working in such areas, such as service provision, working as veterinarians, providing mechanization and AI services, as well as to be engaged in small scale input trading. They find it easier to adopt new technologies and apply knowledge.

86. Linkages to financial institutions. Young farmers and entrepreneurs, face shortage of capital and limited access to loans due to lack of collateral and credit history. DiMMA would provide special support to young farmers and entrepreneurs in linking them with financial institutions, which would

offer non collateral financial products. While securing finances, these beneficiaries could access either DiMMA matching grant funds, or DANIDA Retaining Rural Talent to Accelerate Inclusive Growth and Employment Programme, managed by the IFAD Project and APMA, which is providing matching grants to young entrepreneurs in agriculture sector (with a 40 percent grant element).

87. **Women targeting.** As mentioned earlier women are mostly engaged in milk processing into yogurt and cheese for own consumption and surplus trade. When milk is produced by household and farm at the larger scale, it often becomes male run business. Women often take care of animal health in Georgia, especially in winter. While artificial insemination is still largely men's business, it is women's role to recognize when cows are in heat. At the same time, women suffer from lack of knowledge and limited access to information on veterinary issues, preventive and treatment methods and drugs. There is overall shortage of veterinarians in Georgia, and especially in remote areas. And there are only few women -veterinarians, who mostly work with pets. That makes women- livestock farmers vulnerable and limits their access to knowledge and skills upgrade. They are rarely engaged in animal health training and programmes, which focus mostly on men. Patriarchal traditions often prevent women, especially in remote rural areas to attend such training, and to apply to male veterinarians for animal health advise of drug information. At the same time, there is a growing number of women in Georgia who act as de facto para veterinarians. These are women with basic knowledge and skills about animal health, who open a simple vet drugs shops from home. They are often a source of information on animal health for other women in the village.

88. Programme will identify such women in target villages and provide them with support, including linking with trained veterinarians and inputs suppliers, engaging them in specialized animal health training and capacity building on business management and financial literacy. These women will be serving as information dissemination agents in target villages. Programme will supply them with informational materials and organize for them training on issues, which are usually of high concern for women such as better nutrition, animal health issues, and zoonotic diseases prevention. These women para vets will disseminate this information as well as information on food safety requirements and standards.

89. As it was discussed earlier, women less often manage and own farms, and they often experience various gender based disadvantages in accessing information, services and resources, especially financial resources, and thus need specific targeting efforts within the Programme to reach and engage them in livestock value chain.

90. Women will be encouraged to participate in the VC Clusters to voice specific needs of women and channel concerns to the Programme. They can form an informal community health sub-committee under the Cluster which can receive information on food safety, nutrition issues and prevention of zoonotic diseases. If these issues are identified as priority in the course of the needs assessment, they will be raised and addressed at the local and regional Clusters.

91. Since women in Georgia have specific role in livestock production focusing on milking and processing dairy products, Programme needs to develop specific targeting mechanisms to engage women in the activities, as well ensure their access to Programme's opportunities and possibility to share benefits. The detailed targeting mechanisms will be elaborated in the Gender Strategy and Action Plan in the course of the implementation. A Gender Focal Point will be selected among the key staff and will be in charge of planning and implementation of the gender and youth mainstreaming activities. Programme will allocate budget for implementation of the Gender Strategy. Moreover, a gender perspective will be systematically mainstreamed at individual and organisational levels into Programme management from the start via quantitative and qualitative participatory monitoring and evaluation, ad hoc studies, and stakeholder review workshops. Programme will undertake study at the initial stage of its implementation on the role of women in livestock sector, assess their access to information, resources and new technologies; identify specific obstacles to the growth of their production and productivity, and define areas where they would need specific support from the

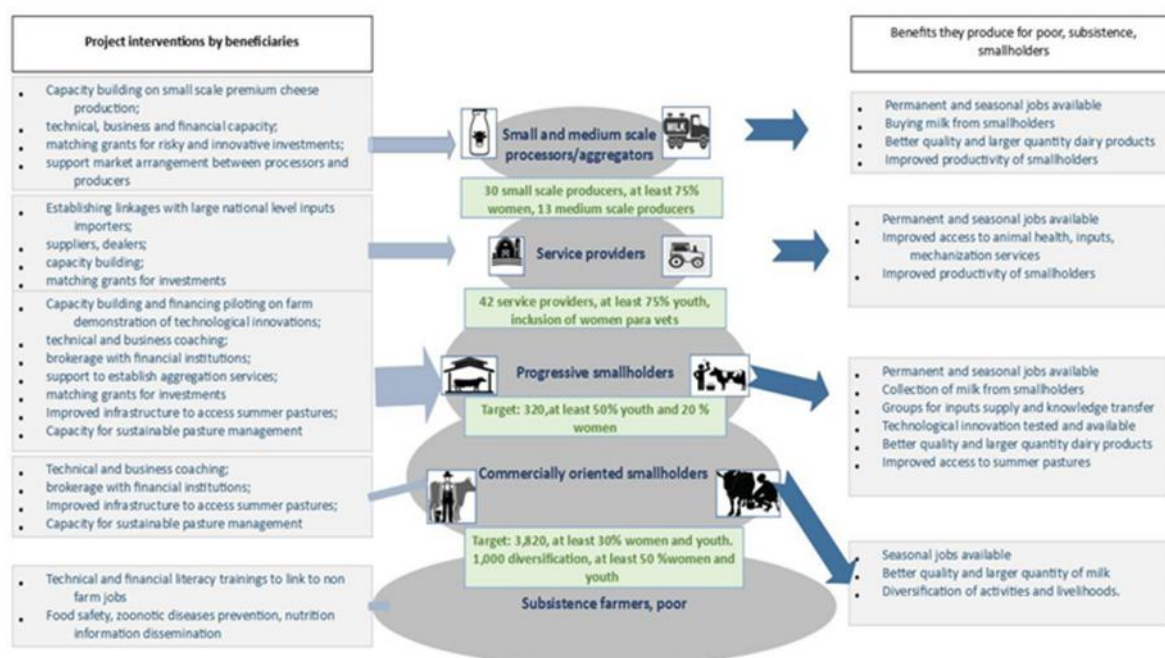
Programme to engage them equally with men in the value chain. This study will be reflected in Programme's Gender Strategy and Action Plan.

92. In order to attract and support women-led farms and businesses, service provision and aggregation and processing enterprises, proposals for matching grant support would receive higher scorings in the overall selection process. Since women play important role in livestock sector, Programme expects that at least 30 percent of all direct beneficiaries will be women.

93. Different approaches will be utilized to make the programme's products and services accessible to women farmers and agricultural entrepreneurs. The DiMMA will be utilising the PMU gender focal point to ensure that gender aspects are reflected in monitoring and evaluation principles that will ensure gender disaggregated data and knowledge will be produced. It is expected that the PMU focal point would dedicate approximately 50 percent of her/his workload to tackle gender-related management aspects in programme implementation. Moreover, a gender perspective will be systematically mainstreamed at individual and organisational levels into PMU management from the start via quantitative and qualitative participatory monitoring and evaluation, ad hoc studies, and annual stakeholder review workshops.

94. **Targeting ethnic minorities and IDPs.** The DiMMA would ensure that it includes marginalized groups, such as IDPs and ethnic minorities addressing their specific needs and using appropriate outreach approaches, such as elaboration of programme materials in other languages, organizing information delivery to these groups. The policy and legislation development supported by DiMMA would ensure that all have fair and equitable access, as well as protected rights to these natural resources; that IDPs, ethnic minorities, women, youth and other vulnerable groups have representation or voice in decision making on allocation of pasture use rights. There will be specific efforts made in undertaking effective outreach efforts to increase awareness and disseminate information among these groups on Programme's benefits and opportunities.

**Figure 8: Targeting beneficiaries, DiMMA activities and potential outcomes**





## IFAD'S TARGETING POLICY - CHECKLIST FOR DESIGN

	Design
1. Does the main target group - those expected to benefit most- correspond to IFAD's target group as defined by the Targeting Policy (poorer households and food insecure)?	DiMMA targets smallholder farmers (commercially oriented and progressive), small and medium size enterprises. Subsistence and semi subsistence livestock farmers will be supported with diversification from dairy livestock due to the challenges for such producers with food safety regulations compliance to be enforced in 2020 Smallholder farmers include women led and women in full households. Added priority focus on women and youth in the targeting of service providers and demonstration farmers.
2. Have target sub-groups been identified and described according to their different socio-economic characteristics, assets and livelihoods - with attention to gender and youth differences? (matrix on target group characteristics completed?)	YES. All target sub groups were identified and described in Appendix 2: Poverty, targeting and gender. Socio- economic characteristics, assets and livelihoods are derived from the data of the Geostat for Agricultural Census of 2014, data from 2015 and 2016, and the ASP Impact Assessment survey database (2017). Special attention is given to youth and gender issues in livestock sector in Georgia. Matrix on target group characteristics is not attached since the Programme targets progressive and commercial farmers.
3. Is evidence provided of interest in and likely uptake of the proposed activities by the identified target sub-groups? What is the evidence? (matrix on analysis of programme components and activities by principal beneficiary groups completed?)	YES. Matrix of beneficiaries provides analysis on interests of the target sub groups and beneficiary chart reflects likely uptake of the proposed activities by the target sub groups. The analysis conducted based on statistics, impact assessment survey and experience of the previous IFAD and other donor interventions.
4. Does the design document describe a feasible and operational targeting strategy in line with the Targeting Policy, involving some or all of the following measures and methods:	Yes. Targeting strategy for the DiMMA is designed in line with the IFAD Targeting Policy.
4.1 Geographic targeting – based on poverty data or proxy indicators to identify, for area-based projects or programmes, geographic areas (and within these, communities) with high concentrations of poor people	Programme is based on demand driven and focused on areas with high potential for dairy livestock development.
4.2 Direct targeting - when services or resources are to be channeled to specific individuals or households	Yes. Programme set targeting for participation of at least 30 percent female beneficiaries; Eligibility criteria for matching grants and loans encourage participation of smallholder beneficiaries, including youth, women; Eligibility criteria for technical and business training, financial literacy has target of at least 30% women and youth Eligibility criteria for youth among targeted service providers will have minimum quota of 50% For details see Annex 2: Poverty, targeting and gender
4.3 Self targeting – when goods and services respond to the priority needs, resource endowments and livelihood strategies of target groups	YES. Self-targeting measures embedded in DiMMA design to ensure that smallholder farmers, including women led households, youth access, participate and benefit from programme's activities. For details see Annex 2: Poverty, targeting and gender
4.4 Empowering measures - including information and communication, focused capacity- and confidence-building measures, organisational support, to empower and encourage the more active participation and inclusion in planning and decision making of people who traditionally have less voice and power	Yes. The beneficiary outreach campaign will ensure wide information dissemination through mass media, regional and local workshops about Programme's opportunities, products and services; support to elaboration of proposals provided to smallholder farmers, including women and young entrepreneurs; local and regional platforms. For details see Annex 2: Poverty, targeting and gender.
4.5 Enabling measures –to strengthen stakeholders' and partners' attitude and commitment to poverty targeting, gender equality and women's empowerment, including policy dialogue, awareness-raising and capacity-building	Yes. See Annex 2: Poverty, targeting and gender
4.6 Attention to procedural measures - that could militate against participation by the intended target groups	Yes. Measures are prescribed to avoid elite capture. See part on Risks in PDR, and Annex 2: Poverty, targeting and gender.
4.7 Operational measures - appropriate programme/programme management arrangements, staffing, selection of implementation partners and service providers	Yes. Operational measures designed for targeting, supported by allocated budget funds, and will be enforced by the Gender Focal Point already working in the PMU.
5. Monitoring targeting performance. Does the design document specify that targeting performance will be monitored using participatory M&E, and be assessed at mid-term review? Does the M&E framework allow for the collection/analysis of sex-disaggregated data and are there gender-sensitive indicators against which to monitor/evaluate outputs, outcomes, and impacts?	Yes. For details see Annex 2: Poverty, targeting and gender.

## IFAD Gender checklist for programme design (and implementation support)

Gender checklist	Comments
<b>1. The programme design report contains – and programme implementation is based on - sex-disaggregated poverty data and an analysis of gender differences in the activities or sectors concerned, as well as an analysis of each programme activity from a gender perspective to address any unintentional barriers to women's participation.</b>	Yes. The programme design contains and based on sex disaggregated data on agricultural production, poverty from the Geostat, ASP impact assessment. Design has analysis of gender differences with regards to livestock VC in terms of roles of women in the livestock sub sector, access to loans, technical support and matching grants. Measures are prescribed how to address limitations. For details see Annex 2: Poverty, targeting and gender
<b>2. The programme design report articulates – or the programme implements – actions which aim to: Expand women's economic empowerment through access to and control over productive and household assets;</b>	Yes. The Programme intends to mainstream gender and provide women service providers, especially para vets, as well as women livestock farmers and women heads of farms with the following: capacity building activities targeted at women engaged in services provision (inputs suppliers, vets and para vets), linkages to the inputs suppliers for para vets, diversification from livestock production and accessing jobs in newly created or expanded enterprises; agricultural production; small matching grants, including to women producers of premium quality cheese with financial products without requiring collateral or on a preferential matching grant ration of 70/30.
<b>Strengthen women's decision-making role in the household and community, and their representation in membership and leadership of local institutions;</b>	Yes. The Programme will support women's engagement in local and regional value chain clusters to voice their needs and concerns to the Programme and policy makers. Programme will cooperate with the UN Women program on women's empowerment and channel lessons learned to policy Women para vets will be trained on issues of nutrition and animal zoonotic diseases prevention to disseminate knowledge further in the communities
<b>Achieve a reduced workload and equitable workload balance between women and men.</b>	Yes The Programme will facilitate increase of dairy livestock productivity and link producers to markets. Women will be able to market fresh milk instead of producing cheese and would benefit in terms of increased income, saved time and decreased workload.
<b>3. The programme design report includes one paragraph in the targeting section that explains what the programme will deliver from a gender perspective.</b>	Yes
<b>4. The programme design report describes the key elements for operationalizing the gender strategy, with respect to the relevant programme components.</b>	Partially. The DiMMA Programme will have to develop Gender Strategy to reflect all targeting measures
<b>5. The design document describes - and the programme implements - operational measures to ensure gender- equitable participation in, and benefit from, programme activities. These will generally include:</b>	
<b>Allocating adequate human and financial resources to implement the gender strategy</b>	Yes. DiMMA will have to employ at least part time Gender Focal Point and allocate funding for Gender Strategy implementation
<b>5.2 Ensuring and supporting women's active participation in programme-related activities, decision-making bodies and committees, including setting specific targets for participation</b>	Yes. Programme sets target of at least 30 percent being female participants NGO will need to facilitate brokerage with financial institutions to allow women to access loans without collateral. If such product will not be offered by the participating financing institutions, women will be treated on a preferential basis during scoring in selection of the BPs and 70/30 matching grant ration, where 30 percent is contribution from women farmers.
<b>5.3 Ensuring that programme management arrangements (composition of the programme management unit, terms of reference for programme staff and implementing partners, etc.) reflect attention to gender equality and women's empowerment</b>	Yes. The existing PMU has a capable Gender Focal Point in charge of gender mainstreaming. TORs of the PMU staff have provisions on gender mainstreaming and sensitivity.
<b>5.4 Ensuring direct programme outreach to women (for example through appropriate numbers and qualification of field staff), especially where women's mobility is limited</b>	Yes. TORs for local NGO to implement Components 1 and 2 will require proven experience in working with gender issues
<b>5.5 Identifying opportunities to support strategic partnerships with government and other development organizations for networking and policy dialogue</b>	Yes. Programme will contribute to livestock and pasture management policy development. It will be also support through local and national Livestock Platforms for local and national level dialogue.
<b>6. The programme's logical framework, M&amp;E, MIS and learning systems specify in design – and programme M&amp;E unit collects, analyses and interprets sex- and age-disaggregated performance and impact data, including specific indicators on gender equality and women's empowerment.</b>	Yes. M&E staff of the PMU will be monitoring targeting performance and beneficiary tracking. All reports will be sex disaggregated and against specific gender indicators.

## Appendix 3: Country performance and lessons learned

1. IFAD's collaboration with Georgia dates to 1997. The cooperation between the Government of Georgia (GoG) and IFAD has helped in improving the livelihood of the rural poor and permitted many of them to realize their productive potential. IFAD has invested a total of US\$ 51.6 million in financing five projects in Georgia with a total outreach of approximately 82,850 households. This has generated co-financing of approximately US\$ 67.3 million from the GoG, World Bank, other Participating Financial Institutions and Beneficiaries.
2. The previous Country Programme Strategic Opportunities Programme (COSOP) was approved in 2004 and expired 2010. The COSOP had three strategic objectives i) Improving on and off-farm productivity through e.g. seeds, veterinary services, extension and technical assistance; ii) Improving access to rural financial services through e.g. credit unions and iii) creation of farmer associations and community development organizations that will empower farmers and the rural poor. A key lesson learned from implementing the 2004 COSOP was that the objectives were not backed up by adequate analysis, implementation details and adequate resources especially from the government's side. Moreover, the government relied extensively on a purely market based approach to agriculture with no incentives to stimulate investment in the sector, and a very limited role for public extension.
3. A Country Strategy Note (CSN) was developed in 2014 following a fundamental policy shift and a more pro-active approach by the government in tackling the many challenges facing the rural poor. The CSN aimed at supporting inclusive rural market development and working with primary and secondary actors to tackle critical constraints - from raising the competitiveness of primary production through to collection, processing and marketing. The Strategy Note focused on i) Promoting of competitive and climate smart value chains (SO1) that entails promotion of private investments by smallholder farmers, farmer groups and agribusinesses in climate-smart production methods and value chain activities for which there are credible and profitable market opportunities; ii) Improving access for farmers and agri-business to key markets (SO2). In particular IFAD works with the financial sector to improve access to both credits, savings, leasing and insurance products that are tailored to the needs of the rural sector; and iii) Promotes financially and environmentally sustainable rural economic infrastructure, critical for increasing productivity, post-harvest management and improving resilience (SO3), supporting direct investment in "collective good" productive and value chain related small scale infrastructure where this is needed to unlock private investment by farmers or agri-businesses.
4. In 2017 a new COSOP for Georgia has been developed in collaboration with the GoG. The new COSOP has three main strategic objectives: i) Promote competitive, inclusive and adaptive value chains (SO1); ii) Improve sustainable governance and operational management of natural resources (SO2); and iii) Advance diversification of rural income streams. Some of the key lessons learned informing the COSOP process is the need to strengthen value chains to increase profitability and market access for small-scale producers; the need to base support more robustly on demand, market driven consolidation, increased competitiveness and economies of scale; and the need to engage with different partners in rural development, such as the financial sector, suppliers, buyers and processors.
5. Below is a summary of the results and impact of previous IFAD engagements in Georgia.
6. *The Rural Development Programme for Mountainous and Highland Areas (RDPMHA)* aimed at assisting populations in mountainous and highland areas improving their quality of life in a sustainable manner by increasing incomes while protecting the natural resource base and the environment. The RDPMHA focused on small scale rural infrastructure. The programme (completed in 2011) succeeded in constructing and renovating of 14 bridges and 63 km of roads serving 119 communities and 7,200 households.
7. *The Rural Development Project (RDP)*, co-financed with International Development Association and restructured mid-way, completed in 2012 and was rated by the World Bank as satisfactory with

respect to rural finance, food safety and institutional support. The programme delivered financial services through microfinance institutions and commercial banks, issuing about 10,000 microcredits and 27 sub-loans to 25 enterprises. The results were a favorable 30 percent increase in income for farmers and enterprises from activities supported by the programme, as well as improved access to agricultural financial services by 190 per cent.

8. *The Agricultural Support Project (ASP)*, completed in 2015, had the objective of increasing assets and incomes of poor rural households and removing infrastructural bottlenecks through rehabilitating of small scale infrastructure (mostly irrigation) and providing rural leasing services. The rural infrastructure schemes have been effective in reaching 15,800 households and irrigating about 11,042 hectares of land. Meanwhile, through the rural leasing services 1,052 jobs have been created and backward linkages established with about 2,645 farmers. The impact assessment showed that in the programme area employment rate had increased by 5 percent points, average area of used land had increased by 8.7 per cent, the area of land unused due to absence of irrigation had decreased by 140 percent, the average area of land provided with irrigation had increased by 21 per cent in villages under the irrigation programme, and the average irrigation expenses per one hectare had decreased by 16 per cent. Overall income from agriculture had increased by 14 per cent and the programme outreach was around 30% more than the target figure at appraisal. The assessment also found that the leasing component contributed to the growth of asset value proportional to its share in total credit resources. These returns are impressive and show the positive and sustainable impact of the programme on beneficiary households. IFAD has also supported the Ministry of Environmental Protection and Agriculture and the Amelioration Company of Georgia in developing of a viable Operation and Maintenance models for the irrigation schemes rehabilitated under the ASP. These O&M models are currently scaled up by the Ministry and are covering many of the irrigation schemes, which are undergoing rehabilitation by the Company.

9. *The ongoing Agricultural Modernization, Market Access and Resilience Project (AMMAR)* is currently the only on-going programme in IFAD's Georgia portfolio. The programme aims to raise incomes of smallholder farmers and increase their climate resilience through public and private investments in upgrading of horticulture agricultural value chains. AMMAR is part of the Ministry of Environmental Protection and Agriculture's substantial ongoing investments to develop horticulture value chains and modernize agriculture in Georgia. Through a multi-stakeholder process of systematic value chain facilitation, involving producers, agribusinesses, input/service providers and other stakeholders, the programme objective is to identify critical constraints along different value chains and to invest in them jointly with value chains stakeholders. While it is still early to derive conclusive lessons, fairly recent experience confirms that investing in a participatory value chain development approach, in what has typically been an 'individualistic' business model has strong potential for spurring competitiveness of the rural agri-business sector and for a more inclusive economic development. Another positive contribution AMMAR can make is to induce a market for agriculture specialists since capacity building, technology sharing and networking with service providers including private input suppliers has multiple benefits.

#### **10. Lessons Learned from IFAD's country programme in Georgia and similar development projects**

11. Despite a relatively small operation of IFAD in Georgia, a significant evaluation effort has been carried out in the recent years by IFAD's Independent Office of Evaluation (IOE), including: two Project Performance Assessments (2014) respectively for the RDP and RDPMHA, a Project Completion Report (2015) for ASP and more recently a Country Portfolio Performance (2017). This design incorporates lessons learned from these evaluations as well as latest relevant information, including the 2003-2015 Economic Development and Poverty Reduction Programme of Georgia (EDPRP), Strategy of Agriculture Development of Georgia for 2014-2020 (SADG).

12. In addition to this there are several ongoing efforts underway in Georgia which have a direct relevance to the DiMMA. Given the potential for complementarity with ongoing projects/ programmes, particularly with the Swiss Development Cooperation (SDC) financed projects implemented by HEKS-

EPER, Mercy-Corps, and FAO, agreements through the donor coordination system will be undertaken at inception stage to ensure effective interventions on the ground. The key lessons of relevance to DiMMA have been incorporated in the design process and are summarized below.

Key Lessons Learnt from IFAD projects and complementary donor projects in Georgia	Lessons Adopted in DiMMA Design
<p><b>Overall policy environment and government ownership.</b> A supportive policy environment in which the Government and participating partners are committed to the programme approach is a pre-requisite for success. In this regard the DiMMA programme and the activities proposed in the technical components should be relevant to the Government strategy and have strong Government ownership.</p>	<p>These lessons are built into DiMMA's design to ensure better government ownership, competent management unit and the existence of a valid and timely exist strategy.</p>
<p><b>Project management.</b> A key lesson is the importance of having a well-knit programme management team with clear reporting lines, autonomy and access to resources to be able to manage the programme efficiently and effectively. The changing management structure in several past IFAD projects in Georgia led to long delays and the dual lines of accountability negatively impacted programme performance. Moreover, there is a need for a strong experienced and committed technical staff member who can facilitate the interaction between programme team, partners and beneficiaries. In general, weak public institutional capacities have been a constraint to programme implementation effectiveness in Georgia, therefore projects should be kept simple and realistic in terms of scope and implementation arrangements.</p>	<p>Experience shows that the current programme management arrangements through a semi-autonomous unit of the Ministry of Environmental Protection and Agriculture, with employment conditions that attract and retain competent staff, works well. DiMMA will be implemented with by the existing PMU responsible for IFAD funded projects with additional technical specialists, and an NGO experienced in market-oriented livestock value chain projects will be contracted to support the PMU.</p>
<p><b>Monitoring and evaluation system.</b> Previous projects lacked a well-functioning monitoring and evaluation (M&amp;E) system which hindered the timely response of the PMU to take corrective actions and proper documentation of impact results. A baseline survey, structured M&amp;E and an impact analysis must be included and implemented as main programme activities and supervised as such.</p>	<p>The design includes a robust and solid M&amp;E system with a baseline survey, structured M&amp;E and an impact analysis. M&amp;E will be monitored closely during supervision missions.</p>
<p><b>Innovation.</b> Certain IFAD investments in rural finance, especially the ones related to the establishment of credit unions and rural leasing operations did not succeed in the past partly because of an overall ambitious design which was overly optimistic about the participation of the private sector in these activities. For any future programme, and especially for DiMMA it is of great importance that innovative solutions are based on in-depth studies, on needs expressed by the beneficiaries, and analysis of the country's adoption capacity for such innovations.</p>	<p>These lessons have been integrated in the DiMMA design.</p>
<p><b>Natural resources/pasture management.</b> Lessons from other donors' interventions in the area of livestock development indicate that in the absence of appropriate legislation, which regulates the land use rights of private farmers, the prospects for improvement of communally used natural pastures are limited. In the absence of a clear government vision on management of pastures, a comprehensive framework for management of pastures will be difficult to develop and enforce within the limited scope of a programme.</p>	<p>DiMMA will promote the use of in-barn livestock husbandry, which relies on grown and purchased fodder and forage, for commercialized smallholder farmers. This will reduce the pressure on communally used pastures. Under the DiMMA programme pasture management pilots will be initiated in the high potential summer pastures, which will then serve as examples for the government and inform the key stakeholders on how to develop a national pasture management strategy. With the improvements in access financed by the GoG, there will be more grazing pressure on these pastures than previously.</p>
<p><b>Targeting, poverty and gender equality.</b> Experiences from</p>	<p>A detailed targeting and gender strategy will be</p>

implementing other IFAD funded projects in Georgia show that there have been some weaknesses in applying specific gender and targeting approaches. The IFAD approach in Georgia has been a more operational approach, looking at the value chain in a holistic manner and recognizing that enterprises/farms may be of any size, suggesting that employment creation (in capable farms and enterprises) is the most feasible approach to rural poverty reduction. Gender inequality is less of an issue in Georgia than many countries due to the gender-egalitarian legacy of the Soviet system. However, since the collapse of the Soviet Union, economic and political upheavals, as well as the impact of civil conflict, have combined with the reassertion of patriarchal ideas regarding acceptable gender roles (as elsewhere in the former Soviet Union). In all cases, under the Georgian constitution the right to property is guaranteed on an equal basis and both spouses have equal legal rights of ownership over the couple's joint property. There are also equal opportunities for women to access credit.

---

undertaken during inception to ensure that appropriate gender and targeting approaches are in place.

<p>Market and value chain development. IFAD operations in Georgia need to emphasize the importance of marketing and value chain development to rural poverty reduction. The Georgia market is relatively narrow considering that there is limited entry to Russian and EU markets. On top of that, Georgian farmers are largely isolated largely in their neighborhood markets, as they lack market access and market information.</p>	<p>DiMMA's component on value chain development will cover most of the issue related to value chain development in the programme target area. The programme will envisage certain activities, such as: capacity-building in marketing, business management, value chain development and technology transfer for micro, small and medium enterprises and smallholder livestock producers.</p> <p>There is substantial unmet demand for raw milk in Georgia as large and SME dairies shift from imports of skimmed milk powder for business reasons. This demand will increase as the milk supply becomes more consistent and of higher quality, and this will be leveraged by DiMMA.</p>
<p>Experience from similar livestock development projects in Georgia shows that productivity can be significantly boosted through adoption of innovations and capacity development of farmers. Smallholder livestock producers would be able to more than double their profits through improved approach to feeding, reproduction and animal health. There are several donor interventions in the livestock sector (SDC-funded MOLI and ALCP programmes of main interest) which have followed a M4P approach where smallholder linkages with 1) veterinary pharmacies and service providers, 2) agricultural machinery suppliers and input suppliers 3) veterinary companies to promote artificial insemination (AI) and 4) small and medium dairy processors have been strengthened. DiMMA will draw on the positive experiences of these interventions, and add value to the M4P approach by directly working with the farmers. Some of the key lessons learned from the SDC-funded projects include:</p>	<p>The M4P approach has been adopted in DiMMA design as part of the strategy to strengthen the dairy value chain. DiMMA additionally includes working with farmers directly to build the capacities of the farmers. ALCP and MOLI and others have provided grants for hard investments, but the added value of the IFAD intervention will be to leverage the hard investment with more soft investments (capacity building, technical skill building), especially at the farmer level.</p>
<p>Provision of veterinary services and livestock inputs promoted by the ALCP and MOLI programmes are being used by farmers and as a result farmers have started using better feed for livestock, and have improved farm hygiene and health of their animals.</p>	<p>These lessons have been incorporated in DiMMA's component on value chain development.</p>
<p>The majority of the smallholder livestock farmers produce low quantities of milk or are mainly producing cheese a household level for own consumption or for selling in the nearby markets. The ALCP and MOLI interventions, which promoted creation of milk processing and collecting businesses, have seen a transformational change in the behavior of the farmers who have started seeing the benefits of selling liquid milk instead of cheese, and timing operations to produce more milk in the winter to achieve higher prices.</p>	<p>These lessons have been incorporated in DiMMA's component on value chain development.</p>
<p>In villages and communities with access to market for raw milk, which ensures regular and better incomes socially in winter (where the milk price can be twice the summer price), the farmers are more inclined to invest in production factors and intensify and expand their production: they keep more animals, they feed them better, especially in winter to take benefit of the high milk prices. If these technologies and services are available, but without market demand for raw milk, there is little uptake of innovations</p>	<p>These lessons have been incorporated in DiMMA's component on value chain development.</p>
<p>Artificial insemination (AI) has not been very successful and not widely accepted by the farmers. Main reasons flagged by development partners is a lack of skilled veterinaries and technicians in the country, low capacity among the existing</p>	<p>These lessons have been incorporated in DiMMA's component on value chain development, including a stronger emphasis on technical and business capacity building of both farmer and AI technician, and</p>

<p>work force on how to promote AI, low capacity of farmers to timely detect heat, inadequate herd management practices, inadequate choice of breeds, etc. A key lesson is the importance of carefully selected the entry points of the programme. Under the ALCP and MOLI programmes there was only one AI input supplier (Georgia Caucasus) available in Georgia at that time and the input supplier could not ensure the quality of the inputs nor build the capacity of AI technicians and demand at farm level. As a result, farmer have been more keen on using bull replacement after projects phased out.</p>	<p>appropriately timed introduction of technology</p>
<p>Co-management of winter pastures near villages (through fencing) has been piloted under the SDC-funded MOLI programme, but with little success. Experience shows that it took MOLI staff up to 1-2 years to find a farmer group who was willing to pilot co-management of communal pastures, and the pilot only worked while MOLI/HEKSEPER staff were monitoring the group. UNDP has piloted co-management of pastures with some success, but these pastures were not communal pastures, but located in protected areas.</p>	<p>These lessons have been incorporated in DiMMA's component on Sector Infrastructure and Enabling Environment. DiMMA will focus on higher potential summer communal pastures, but will have a positive but indirect impact</p>
<p>There have been several a number of development initiatives with aimed at forming formal farmer associations groups (associations, cooperatives) in Georgia, and Government's 2013 Law on Agricultural Cooperatives provides a legal framework for them. The Experience however shows that this kind of farmer organization mechanism has not been easily accepted by farmers, due to strong farmer resistance to the notion of collectivism given their (Soviet) past. Farmers mainly see cooperatives and producer associations as a means to access cheap credit, rather than effective successful business models. There are however some limited successes in supporting agricultural cooperatives: Oxfam, for example, has worked with production, processing and mechanization cooperatives in the hazelnut, horticulture and greenhouse sectors; and through a 6-9 month long structured process of support to the them has reportedly achieved positive results. More broadly, In the few cases where farmer cooperatives have been successful it has been mainly due to close family relations or a small number of friends where trust among members is high.</p>	<p>These lessons have been incorporated in DiMMA's component on Sector Infrastructure and Enabling Environment. Cooperatives will qualify for DiMMA assistance, but the primary focus will be on individual farmers and enterprises in the livestock value chain.</p>
<p>The Government through the Ministry of Regional Development and Infrastructure and other donors (FAO, Austria, ENPARD) implementing village mobilization programs through participatory village consultations where villages prioritize their development needs (included in the Rural Development Strategy). These Local Action Groups (LAGs) could serve as an entry point for community led initiatives, where communities can list their priorities and needs (fodder, genetics, fodder, pasture, food safety, management of the herds).</p>	<p>These lessons have been incorporated in DiMMA's component on Sector Infrastructure and Enabling Environment. The DiMMA Livestock Platforms will be developed through the LAGs where appropriate.</p>



### 13. DiMMA synergies with other donor and government projects and programmes

---

#### Donor projects

---

SDC funded (total CHF 9.2 million) programme **“Alliances against poverty in the Lesser Caucasus Region (ALCP)”** consisting of three sub-projects implemented in Kvemo Kartli, Samtskhe Javakheti and Adjara regions by Mercy Corps during 2008-2017. The programme aims at reduction of rural poverty by using Making Markets Work for the Poor – M4P - approach in livestock, milk and meat sectors. The programme has established ties between producers, processing companies and service providers with support from local authorities.

---

SDC funded a second phase of the **ALCP on Promoting Access to Finance and Agri-insurance for Agricultural Value Chain (ALCP, Phase II)** in Kvemo Kartli, Samtskhe Javakheti and Adjara (2014-2017). Implementing partner was Business and Finance Consulting (BFC). The programme includes technical assistance to support financial institutions to better understand specific requirements of primary producers and processors (high and medium risk businesses) to design tailor-made (sector specific) credit schemes and/or lease arrangements and simplify procedures for credit application for farmers, including smallholder farmers, and small enterprises. The Programme also supports a National Agri-Insurance Scheme (NAGIS).

---

SDC funded (total CHF 5 million) programme **“Market Opportunities for Livestock Innovators (MOLI)”** in Kakheti and implemented by HEKS/EPER during 2011-2018 (two phases). The programme aims at reduction of rural poverty by using an M4P - approach in livestock, milk and meat sectors. The programme worked with 1) veterinarians, artificial insemination providers, feedstuffs, fodder, seeds, fertilizer and other supporting functions in the market system, 2) milk processors: primarily local artisanal dairies, secondarily industrial trusts (through milk collection points and intermediaries), 3) slaughtering enterprises (together with the milk value chain players –the core of the market system) 4) Market players dealing with the regulatory framework; mainly state representatives of administrative or food specific entities, but also existing (informal) rules.

---

Danish International Development Agency (Danida) and Swiss Agency for Development and Cooperation (SDC) funded (CHF 11.0 million) programme

**“Rural Economic Development in southern Caucasus” (RED)** funded by SDC and DANIDA was implemented by Niras in collaboration with Mercy Corps and CNFA during 2012-2017. RED aims to strengthen the Potato and Dairy Value chains through the introduction of modern technologies, business practices, marketing tools, public awareness/promotion and internationally-recognized quality standards in order to enhance the financial viability of the potato and dairy/livestock sectors, increase incomes and contribute to the economic development of Kvemo Kartli and Samtskhe-Javakheti.

---

Austrian Development Agency (ADA) funded (EUR 0,59 million) programme **“Animal Health Management in Cross Border areas of Armenia and Georgia”** was implemented in two regions of both Armenia and Georgia (Kvemo Kartli and Samtskhe-Javakheti) by Armenian CARD during 2011-2014. The programme intended to significantly improve animal health and animal disease prevention, hereby effectively contributing to improved living conditions of rural population in the border regions of Armenia and Georgia. The focus was on capacity building/ training for veterinary personnel, the establishment of veterinary authorities and the cross-border co-operation of experts in the field of animal health.

---

European bank of Reconstruction and Development (EBRD) funded (USD 5.0 million) programme **“Improving food safety in Georgia’s dairy sector”** was implemented in all Georgia by FAO during 2016-2017. The central component of the programme is training and knowledge transfer to farmers in the dairy sector including encouragement of investments to the sector.

---

EU Commission Delegation to Georgia (EUD) funded (EUR 1.5 million) programme **“Strengthening Foot-and-Mouth Disease surveillance and control in the Trans-Caucasian countries to assist progression on the West Eurasia FMD Progressive Control Pathway (Phase II)”** was implemented in Armenia-Georgia-Azerbaijan border areas by FAO during 2010-2012. The programme improved FMD monitoring and control to progress on the West Eurasia FMD Roadmap. It enhanced laboratory capacity to support FMD monitoring /surveillance and control programs and reduced the risk to incomes and livelihoods of livestock farmers through lowering the frequency and impact of infectious diseases.

---

The European Union provides support to rural development and agriculture in Georgia through the **European Neighborhood Programme for Agriculture and Rural Development (ENPARD)**. Implemented since 2013, the main goal of ENPARD is to reduce rural poverty. Programme assistance is provided to the government and also to NGOs working directly with communities on the ground. The total budget for ENPARD in Georgia for 2013-2020 is EUR 102 million.

---

EU(ENPARD) and Austria (through ADA) had supported the establishment of **Local Action Groups (LAGs)** included in the Rural Development Strategy and is a programme implemented by three international NGOs with recognised experience in rural areas of Georgia: CARE-Austria (Lagodekhi), People in Need- the Czech Republic (Kazbegi) and Mercy Corps-Scotland (Borjomi) 2013-2018.

EU-funded and UNDP implemented **Sustainable management of pastures in Georgia programme** (2012-2016) to demonstrate climate change mitigation and adaptation benefits and dividends for local communities. Project objective was to rehabilitate 4,000 ha of land in Vashlovani Protected Areas. Co-management of pastures was piloted and a road map for pasture policy was presented to the MEPA.

EU funded (EUR 5.0 million) **SME development and DCFTA-Georgia programme** has been implemented by GIZ since 2015. The programme supports Georgian SMEs economic integration into the EU market.

EU funded (EUR 0.6 million) **Food and Agricultural SME Support Initiative** implemented by Georgian Framers Association since 2017. Capacity building of business organisations in the agricultural sector.

EU is funding **Support to Regional Policy II and Advancing Regions for Sustainable Development (ARSD) projects** (2016-2018). Project strategic goal is to facilitate evidence-based and informed policy making with promotion of the innovative models of partnerships between regional, municipal, and rural development stakeholders.

EU funded (EUR 0.8 million) programme **“Economic development for IDPs in Georgia”** was implemented in 10 settlements in Shida Kartli by World Vision during 2010-2012. Within the programme, total 20 demonstration plots were established, 10 of which were open soil farming as well as animal husbandry and beekeeping. The remaining 10 demonstration plots were established as food processing facilities.

EU funded (EUR 0.2 million) programme **“Support to the improvement of the quality of Food Safety, Veterinary and Plant Protection system in Georgia”** was implemented in whole Georgia by ScanAgri during 2009-2011. The programme strengthened the capacity of the Ministry of Environmental Protection and Agriculture and the National Agency for food safety Veterinary and Plant protection to improve the quality of food safety, veterinary and Plant protection system, including the legislative and institutional network.

French Ministry of Foreign Affairs funded (EUR 0.02 million) programme **“Improving dairy quality and productivity in Georgia”** was implemented in one village in Samtskhe-Javakheti by FERT/GBDC during 2011-2016. The programme strengthens the role of farmers in the management of services needed to improve the dairy quality and productivity.

**FAO** is implementing a large number of projects in agriculture area, mostly funded by the EU in the framework of ENPARD II. The Capacity Development of the Ministry of Environmental Protection and Agriculture Project aims to improve policy and strategy in this sector, strengthen capacity of the MEPA at the central and local levels, including public extensions centres (ICCs).

**Millennium Challenge Georgia (MCG)** funded (USD 23.3 million) programme **“Development of high value agriculture sector in Georgia”** implemented in all Georgia by CNFA during 2009-2011. The programme catalyzed local matching investment from Georgian partner enterprises and farmers. Through matching grants, farmers were enabled to access innovative agricultural production technology, inputs (i.e. seed, feed, fertilizer, and machinery including milk processing equipment).

Millennium Challenge Georgia (MCG) funded (USD 23.3 million) programme **“Development of high value agriculture sector in Georgia”** implemented in all Georgia by CNFA during 2009-2011. The programme catalyzed local matching investment from Georgian partner enterprises and farmers. Through matching grants, farmers were enabled to access innovative agricultural production technology, inputs (i.e. seed, feed, fertilizer, and machinery including milk processing equipment).

**Oxfam in Georgia.** Oxfam’s program in Georgia was originally launched in 1993 to provide emergency relief but by 1999 the organization shifted focus to longer term development. Oxfam works with and through local partners including civil society organizations, NGOs, networks, and different levels of the Georgian government. Oxfam has supported the establishment of GAARD, policy work on food security and has had some success in agricultural cooperatives.

---

Swiss Agency for Development and Cooperation (SDC) funded (total CHF 5.9 million) **National Animal Identification and Traceability System (NAITS)** programme to set up a system to ensure traceability of livestock to help to improve the incomes of farmers in the South Caucasus by increasing both herd productivity and the producers' access to markets. Is being implemented 2016-2020. NAITS supports the development of a reliable, functioning system to allow small-scale farmers to sustainably improve their incomes by reducing mortality in their herds and gaining better access to regional and international markets for their livestock and animal products.

SDC funded (CHF 6.5 million) **Modernising vocational education and training related to agriculture in Georgia**. Implemented by UNDP and Ministry of Education and Science. The programme includes vocational educational training (VET) system in agriculture and farm productivity.

SDC funded (total CHF 5.5 million) programme **"Rural Development in the Region of Racha-Lechkhumi (RDRL)"** in Racha-Lechkhumi by CARE Georgia during 2008-2015. The programme aimed at reduction of rural poverty by using Making Markets for Poor – M4P - approach in livestock, milk and meat sectors. This programme was not very successful due to low population and limited market in the region

SDC funded (total CHF 0.46 million) programme **"Integrated Socio-Economic Development in the Pankisi Valley"** in Kakheti by UNDP during 2010-2012. The programme improved productivity and marketing opportunities for small-scale cattle and sheep farmers. It also improved provision of veterinary, extension and laboratory services, animal housing and feeding.

Swedish International Development Cooperation Agency (SIDA) funded (USD 9,2 million) programme **"Swedish Support to Milk and Dairy Sector" (SMDSP)** implemented in Kakheti, Kvemo Kartli and Shida Kartli regions by OPTO International (later GRM International) during 2005-2011. The programme and its three sub-programme activities targeted farmers, processors, and entrepreneurs respectively to organize and support them in increasing both quantity and quality of milk.

SIDA funded (SEK 10 million) **"From Cow to Consumer – an Integrated Dairy Project in Georgia"** implemented in regions of Tbilisi, Kakheti, and southern Georgia by ScanAgri during 2002-2005. The programme increased quality and quantity of milk sold for dairies.

**UN Women** has been facilitating the Gender Group since 2012, which is composed of various donor agencies, NGOs, and state agencies engaged in rural development. This group reviews strategic documents of the GoG in agriculture and rural development for gender inclusion and sensitivity. It suggested changes to agricultural development strategy via FAO. UN Women conducted Gender Assessment of Agriculture and Local Development jointly with the FAO. UN Women is implementing several projects with focus on social mobilization of the vulnerable groups, such as IDPs (jointly with the FAO), women's groups (Self Help Groups) facilitating social mobilization and providing them support in accessing economic opportunities.

The World Bank is funding **Irrigation and Agricultural Land Market Development Project** (US\$50 million) implemented by the MEPA (2014-2019). Project has two objectives of improving delivery of irrigation and drainage services, and developing improved policies and procedures as a basis for a national program of land registration.

United States Agency for International Development (USAID) funded (USD 7.5 million) programme **"New Economic Opportunities (NEO)"** implemented in all Georgia by Chemonics during 2011-2015. NEO programme improved rural incomes; reduced poverty levels; improved food security; addressed critical, small-scale household and agricultural water constraints in targeted communities; enabled targeted internally displaced persons (IDP) communities (old and new) to sustainably maintain their households; and assisted communities distressed by natural or other disasters. Assistance included some inputs to the livestock sector.

USAID funded (USD 19.5 million) programme **"Restoring Efficiency to Agriculture Production (REAP)"** implemented in all Georgia by Cultivating New Frontiers in Agriculture (CNFA) during 2013-2018. REAP facilitates the entry of new agribusinesses and input suppliers, including machinery service providers, storage facilities, sorting/grading centers, and small and medium scale processors to improve the availability of high-quality inputs and services, and strengthen markets for agricultural goods and services. The livestock sector and milk processing are partially included in the scope of the REAP programme as well as special support provided to women-entrepreneurs.

USAID funded Farmer to Farmer program (USD 2.5 million), 2014-2018. The programme includes technical assistance to farmers, farmer groups and agribusinesses. Supports food security and agricultural processing, production, and marketing.

---

USAID funded (USD 8.5 million) programme “**Economic Prosperity Initiative (EPI)**” implemented in all Georgia by Deloitte in collaboration with CNFA during 2010-2014. This comprehensive program improves Georgia’s overall economic competitiveness through assistance designed to: 1) expand and deepen the country’s economic governance capacity; 2) improve agriculture sector productivity; and 3) strengthen targeted non-agricultural value chains that have the highest growth potential. EPT targeted areas for development of high-potential value chains: Wine, Hazelnuts, Berries, Fresh Fruit, Processed Fruit, Root Crops, Fresh Vegetables, Processed Vegetables. However, due to low export potential of the livestock sector it was not included in EPI activities.

United States Department of Agriculture (USDA) funded (USD 1.4 million) “**National Animal Health Program**” was implemented by USDA in collaboration with the Colorado State University during 2008-2017. The program enhances the Technical Capability of the National Animal Health and Food Safety Services System in Georgia.

---

#### **Government programmes**

**Enterprise Georgia** is a state agency which facilitates private sector development in the country. The agency assist SMEs expand and enhance operations, become more market oriented, and turn new ideas into profitable businesses by offering them financial and technical assistance tools. Enterprise Georgia offers support to larger industries but also to micro and small businesses (5,000 GEL per entrepreneur) with prizes showcasing successful start-ups and existing business. The program offers BP development training and support for attracting FI co-financing.

The Government Programme **Agricultural Cooperatives Development Agency (ACDA)** supports cooperatives by offering: a) grants for hazelnut production, processing and marketing; b) state support for the modernisation of honey production methods, improvement of honey quality and increase of honey quantity, and c) grants and subsidies for improving and increasing milk and dairy production, streamlining milk collection and processing, upgrade quality of milk and dairy products, cattle breed improvement. ACDA provides capital investment and technical assistance to agricultural cooperatives for equipping them with modern milk collection and processing infrastructure; for purchasing laboratory equipment to control raw milk and necessary equipment for artificial insemination to improve breeds. Livestock specific preferential financing is offered under the subsidies and grants of APMA and ACDA and channelled through the banks.

The Government programme **Agriculture Projects Management Agency (APMA)** was established in 2012 by the MEPA to promote and stimulate primary production and processing in the agricultural sector. APMA finances a) Investments in the production of vegetables, berries, mushrooms, herbs and high-tech greenhouses, high-tech and intensive farming of cattle (dairy-meat), high-tech and intensive pig farms; high-tech and intensive poultry farming (directed towards meat generating and breeding purposes); high-tech intensive and animal fur farm; high-tech and intensive fish production; beekeeping, establishment of seedling and nursery gardens, perennial orchards, vineyards, plantations, etc. b) Processing of fruit, berries, vegetables, mushrooms, citrus, nuts, hazelnuts and other nuts. wool, leather, bay leaf, tea, tobacco, vegetable fats and halva (butter, margarine, boiled butter), honey, oil and spices, meat and milk, slaughterhouses, feed production for animals, birds and fish, and c) Warehouses for storage, grain dryers, refrigeration storage facilities.

---

## Appendix 4: Detailed Programme description

### Outcomes/Components

1. The programme has two principal and inter-related components (i) Dairy Value Chain Development and (ii) Institutional and Organisational Development.

### Component 1: Dairy Value Chain Development

2. The expected outcomes of this component are: (i) dairy VC innovations and capacities developed; and (ii) milk production, safety, marketing and profitability of target households improved through 4-Ps model. It has two mutually reinforcing sub-components: (i) Demand driven demonstration of dairy production and business models; and (ii) Strengthening stakeholder linkages to dairy VCs.

### Sub-component 1.1: Demand driven demonstrations of dairy production & business models

3. The implementation of SC1.1 will correspond to the innovation phase. Building on the cluster identification activities in component 2, SC1 will create additional demand for high grade milk and niche dairy products sourced from target households by assisting dairy aggregators to expand the outreach of their milk collection and dairy product supply chains to the programme communities. In this phase the aggregators will be mainly linked to progressive dairy producers based on the 4-Ps approach who can supply the minimum volumes of high grade, safe milk products required to sustain the aggregators. The linked progressive dairy producers will be supported to implement technology and business model demonstrations in their farms aimed to increase the profitability of their partnerships with the aggregators. Market vulnerable dairy producers will be exposed to these demonstrations and adequately trained to motivate them to adopt these technologies successfully. The main activities in SC 1 are: (i) Partnership between progressive dairy producers and aggregators; (ii) Demonstration and dissemination of innovative technologies and business models; and (iii) Capacity building of value chain actors

### Partnership between progressive dairy producers and aggregators

4. This activity will be based on a preliminary mapping exercise (component 2) to identify 6 priority clusters for the innovation phase and 9 more clusters for the adoption phase based on the extent of presence of the essential stakeholders. For the innovation phase, at least one clusters will be located in a mountainous areas and one more in a foothill area. All the 6 clusters must have an existing or the committed presence of at least one aggregator within six months of DiMMA's implementation. Government supported, performing dairy processing cooperatives will be preferred as aggregators. For the adoption phase, the additional 9 clusters will have exiting or committed presence of at least one aggregator within year 3 of DiMMA's implementation.

5. Overall, DiMMA will support 65 aggregators, 15 in the innovation phase and 50 more in the adoption phase. Also, out of the total, 46 aggregators will be small scale and 29, medium-scale: (i) Small-scale, farm based aggregators: They will have 100-500 litres milk processing capacity per day, primarily for the production of niche dairy products in summer pastures in compliance with food safety standards. These products will be sold to local tourists in restaurants and hotels and also in other niche markets; and (ii) Medium scale processing units: They will have average 6 tons milk processing capacity per day. They will be linked to milk collection centres in the mountainous pasture areas as well as in locations in the plains with higher concentration of target households.

6. In order to select aggregators, DiMMA will expressions of interest from interested aggregators to partner with the programme to establish/upgrade milk processing and collection units in the programme areas. Eligible aggregators can be: (i) existing dairy processing cooperatives, SMEs (individual or private companies) and large dairy enterprises, operating within or outside the region; and (ii) upcoming dairy cooperatives and SMEs identified during the preliminary mapping exercise. The PMU will appointed a selection committee to shortlist the eligible aggregators. These aggregators will receive technical assistance from capacity building service providers hired by the programme to

facilitate consultations/negotiations between the aggregators and other VC actors through the stakeholder platforms developed in component 2.

7. Based on the results of these discussions the SPs will assist the aggregators to develop detailed BPs which will include estimation of total investments (fixed assets, working capital) and financing arrangements; projected outreach of their supply chain to DiMMA target households over 3-5 years, projected growth in employment provided of target households over 3-5 years and steps for addressing climate change risks. The selection committee will review the BPs and select partner aggregators based on their commitment to achieve at least 60% of their linkage outreach to target households from the priority communities and creation of the minimum number of employment opportunities from the programme communities, in addition to other criteria such as co-financing share, climate risk adaptation measures, etc. Selected aggregators will be eligible for seed capital financing from the DVCF subcomponent 1.2.

8. **Linking progressive farmers to aggregators:** DiMMA will assist the selected aggregators to partner with 320 progressive dairy producers in the 15 clusters to meet the milk supply requirement of these aggregators during the early stages of cluster formation. During the innovation phase 120 of these progressive producers will be supported to host demonstration of new technologies and business models that can increase the profitability of their linkages to the aggregators.

9. The stakeholder mapping exercise carried out at the beginning of the programme will identify the potential progressive dairy farmers in the programme area. These lists will be refined through discussions in the stakeholder platforms also attended by the selected aggregators. The identified producers will be invited to express interest in linkages with the selected aggregators with programme support. Those who apply will receive technical assistance from capacity building service providers hired by the programme to develop BPs. These BPs will serve as future templates for BPs for market vulnerable dairy producers who seek programme support for farm improvement during the adoption phase.

10. The BPs will be reviewed by the selection committee constituted by the PMU eligible progressive farmers will be selected for programme support based on (i) evidence of improvements and investments in the farms that contribute to intensification (ii) ability to rapidly comply with food safety norms (iii) potential to produce and supply relatively large quantities of high grade milk throughout the season as required by the partner aggregators (iv) the potential of these producers to host programme supported technology demonstrations in their farms particularly their interest in renewables (e.g. solar) for energy production. Selected progressive farmers will be eligible for seed capital financing from the programme supported DVCF (SC 1.2)

#### **Demonstration and dissemination of technologies and business models**

11. DiMMA will support the on-farm demonstrations of modern, innovative and cost-effective livestock husbandry and fodder production technologies that improve milk quality, reduce seasonality of production and increase productivity and cost efficiency of dairy production. These demonstrations will be supported in the farms of 120 progressive farmers who are already linked to aggregators in the innovation phase (years 1 and 2). The technologies and business models demonstrated should be able to increase the profitability of producer household from its partnership with the aggregator. These demonstrations in real local conditions will enable the market vulnerable producers in the neighbourhood to understand the benefits and implications of the technologies and will develop their appetite to adopt these.

12. *Areas of demonstrations:* the main areas of demonstration will be: (i) fodder production: fodder varieties and production techniques for improved, year round, quality fodder availability; (ii) fodder conservation techniques: silage making, for higher nutritional content, better nutrient preservation, more palatability to livestock; (iii) AI and crossbreeding: AI campaign, for up 10,000 cows with breeds selected for adaptability to local conditions; (iv) manure management: manure composting units for own farms and commercial supply to others (v) energy saving, climate smart pilots: Milk precooling, heat exchanger technology, solar energy for pre-heating water, to reduce

energy consumption in processing units; (vi) milk quality management and milk hygiene: Hygienic milking practices, mastitis detection and prevention techniques, improved milk handling methods; (vii) animal health and welfare: Preventive health packages and animal welfare measures (e.g. improvement of winter housing); and (viii) Collective pasture management: In sites (16 sites) showcase technologies for improving grassland productivity e.g. fencing, rotational grazing, weeds management, control of invasive species.

13. *Selection of progressive producers for demonstrations*: Progressive producers will express their interest in the demonstrations at the time of applying for linkages to aggregators. The BPs for supporting their linkages to the aggregators will also include the details of the demonstrations. The BPs will be reviewed by the selection committee and eligible households will be selected based on criteria including (i) capacity to organise the labour requirements to manage these demonstrations; (ii) literacy levels to keep the records of the demonstration; (iii) potential for scale up the demonstrations based on success; (iv) accessible location of demonstration. DiMMA will sign a Memorandum of Understanding with these producers which will detail their respective roles and responsibilities for successful implementation, ownership of the assets financed by the programme and reporting, monitoring and supervision responsibilities.

14. *Demonstrations implementation arrangements*: DiMMA will train the selected households on the technical and business aspects of the technologies selected for demonstration. It will also supply the necessary inputs for the demonstrations (e.g. forage seeds, fertilizers), and will contribute to some of the investments (e.g. fencing for rotational grazing). When services are needed for the demonstrations (e.g. silage making services, AI services), DiMMA will contract service providers to deliver these service at the demonstration sites. These activities will be supported by seed capital financing from the DVCF (refer SC 1.2).

15. *Technology knowledge dissemination*: In order to facilitate technology dissemination the programme will adopt the following steps (i) Field days: Total of 6,000 farmers will attend 1,200 field days over the programme period during which farmers of a same community will gather on the demonstrate site and interact with the host farmer about the benefits and constraints of the technology (ii) Exposure visits will be organized to enable value chain stakeholders learn from the technical and business innovations e.g. aggregation models, 4P arrangements, collective pasture management (iii) Involve other stakeholders: banks, local authorities, decision and policy makers will be involved in the exposure visits to develop their understanding and support for the innovative technologies and services (iv) Leaflets and brochures: leaflets and brochures will be distributed to facilitate adoption of the promoted technologies. (v) TV and radio programmes: these will be used for wide diffusion of information on technologies. The stakeholder platforms will have an important role in dissemination of success stories.

#### **Capacity building of value chain actors**

16. The programme will provide technical and business management training to all categories of dairy value chain actors in order to develop their capacities to successfully adopt the programme promoted technologies showcased through the demonstrations.

17. **Training of smallholder dairy producers**: Business management training will focus on helping the participants to gain the business skills to make key investment decisions, negotiate with suppliers or buyers, or approach banks with loan proposals. This will be done simultaneously with the technology demonstrations and practical technical training. Real dairy farming case studies will be used for developing the capacity of the participants to take investment decisions. Technical training will be provided in parallel, to the same beneficiaries. These trainings will be done in parallel with demonstrations on topics such as: milk hygiene and compliance with new foods safety regulations, fodder conservation, herd management, grazing management.

18. The capacity building service provider hired by the programme will be support by international technical assistance will develop training curriculum, content, material and training delivery methodology both in technical and business training areas. Participants' performance assessment

tools will also be designed at this stage. The programme technical staff, the field coordinator in each local coordination office and a pool of local facilitators in each region will participate in Training of Trainer (ToT) sessions facilitated by an international technical service provider. Thereafter, the field facilitators will be contracted as required for developing the BPs and conducting training and capacity building sessions for target households in the adoption phase. The programme technical staff and the field coordinators will be responsible for supervision and quality control. Where relevant, partnerships with the Governmental District based Information and Consultancy Centres (ICCS) will be explored for delivering the training session.

19. **Training of farm level service providers and aggregators:** Representatives of 80 processors and farm level service providers will be trained through 4 one-week training sessions. These training sessions will address both business management and technical issues (for processors, the focus will be on management of food safety, implementation of HACCP). The training sessions will be facilitated by private capacity building service providers (specialized local consultancy firms) supported and contracted by the programme.

20. **Training of AI technicians:** The success rate of AI in the region has been very low which is probably due to a problem of mastery of the technique by the AI techs; these service providers perform very few AI and may have lost the skills they had initially acquired. A refresher training session, facilitated by an international trainer, will therefore be organized during one week for 21 AI technicians at the beginning of the programme. This will include theoretical training, as well as practical training in slaughter houses first, then in on-farms real situations.

21. **Performance assessment of training participants:** At the end of each training programme participants will be subjected to performance assessment. The performance assessment scores will be kept in record and will be taken into consideration for the target households, who later on apply for seed capital financing from the programme to improve their production systems.

#### **Sub-component 1.2: Strengthening stakeholder linkages to the dairy value chains**

22. Seed capital financing will be extended to assist the adoption of the technologies and business models. Grant financing will be provided to PUAs to adopt pasture improvement measures to increase the profitability of the dairy production systems which depend on pasture grazing. Alternative non-extractive activities and will be promoted in pastoral communities to reduce grazing pressure on pastures. Rehabilitation of access roads to the summer pastures will be carried out to improve the market of niche dairy products produced in these areas. The main activities will comprise (i) selection of technology and business model adopters (ii) seed capital financing (iii) Implementation support (iv) pasture development (v) marketing infrastructure development

#### **Selection of innovative technology and business model adopters**

23. This activity will support the adoption of the innovative technologies and business models by target households - mainly market vulnerable dairy producers; farm level service providers; and dairy aggregators - particularly in-pasture processors and summer camp MCCs in the mountainous areas.

24. The selection of beneficiaries in the above categories will commence with a call for proposal for the adoption of the demonstrated technologies and business models with programme support. The applications received from target households be screened at the level of the stakeholder platform followed by social ranking of the shortlisted target households and further shortlisting by a selection committee appointed by the programme based on technical merit and performance results of applicants during the capacity building activities. Applications from aggregators and service providers will also be shortlisted by the selection committee. All shortlisted target households, field level service providers (FLSP) and aggregators will be supported to develop BPs.

25. The BPs for target households will be prepared by field facilitators hired by the programme in each region (and capacitated through ToTs). The BPs for the farm level service providers and aggregators will be prepared by the capacity building service providers hired by the programme. In general the BPs will include mechanism for linkages between the target households, service providers



and aggregators; availability of potential assets that can be used as collateral for receiving bank financing; investment requirements and projected profitability over 3 to 4 years. Additionally, the BPs of the farm level service providers and aggregators will present targeting mechanisms to link with target households, projected outreach to target households and employment opportunities created and over 3 to 5 years. The PMU appointed selection committee will select programme beneficiaries based on BP review.

26. *Development of potential partnership agreements:* The BPs will be presented in consultative business linkage forums organised by the stakeholder platforms attended by the relevant aggregators, farm level service providers and target households. The programme will assist the stakeholder platform to broker potential linkages between the different actors during these forums based on details contained in their BPs. Preliminary partnership agreements will be developed between the aggregators, farm level service providers and target households during the linkage forums. These partnership agreements will be included in the BPs and will serve as an important criteria for the selection of these BPs for programme support.

### Seed capital financing

27. The programme will provide seed capital financing to implement the business establishment and start-up requirements of target households, farm level service providers and aggregators during the early stages of cluster development. Seed capital financing will be provided through the Dairy Value Chain Development Facility (DVCF) of the programme. DVCF which will be managed by the APMA. It will finance commercially viable businesses that are considered too risky for immediate financing by commercial banks due to (i) their start-up nature involving innovative technologies and business models not widely tested earlier; (ii) business ownership by households having insufficient assets to fulfil the physical collateral requirements of the banks; (iii) absence of formal business records and past performance documentation of owners and (iv) rural presence of these businesses in emerging dairy clusters which have high exposure to marketing risks.

28. Thus, the eligible beneficiaries for seed capital support will include (i) target households who are first time adopters of programme supported technologies or business practices (ii) youth entrepreneurs starting-up as farm level service providers (iii) first mover aggregators who bear additional risk to start linkages to target households during the early stage of cluster development (iv) youth entrepreneurs implementing pilot projects that reduces grazing pressure on pastures.

29. The seed capital financing will meet 60 to 80% of the programme costs depending upon the nature of business and phase of financing - innovation or adoption. The programme will meet a high proportion of the costs during the innovation phase to incentivise the beneficiaries to start-up their activities and begin the value chain development process in spite of the high risks involved in the early stages of cluster development. The seed capital financing can be used to finance fixed assets, machinery and equipment, essential civil works such as renovation of premises and improvement of cowshed. Seed capital financing outreach, percentages, ceilings and eligible activities is presented in the table below.

Categories	Seed capital beneficiaries		Seed capital, % [ceiling in EUR]		Eligible activities
	Innovation phase	Adoption phase	Innovation phase	Adoption phase	
- No of clusters	6	15	6	15	
<b>Individual farmers</b>					
- Market vulnerable producers	270	3,630	80% [8,000]	60% [4,000]	Cow shed, milking machine;
- Progressive producers	120	200	80% [8,000]	60% [6,000]	Cow, cow shed, milking machine; MI premiums
<b>Farm level service providers</b>					
- AI and Vet	6	15	80% [16,000]	60% [12,000]	Vet office renovation and equipment
- Silage/ Hay	6	19	80% [60,000]	60% [45,000]	Machinery, equipment - tractor, mower, baler, etc
<b>Aggregators</b>					
- Medium scale	9	20	60% [45,000]	40% [30,000]	Building, generator, milk cooler, milk meter, etc
- Small scale	12	34	80% [12,000]	60% [10,000]	Equipment, processing room renovation
<b>Non-extractive livelihoods</b>					
- Pilot projects		250		80%[1,500]	Touristic activities in the pasture areas, collection of medicinal and wild forest products, etc

30. The remaining programme cost including working capital needs will be financed by beneficiary contribution. Beneficiary contribution can be from own savings, borrowings, the grants and subsidies mobilised by the beneficiary. The programme will support the beneficiary to mobilise own contribution as discussed below;

31. *Commercial bank financing:* The programme will support the beneficiaries to explore commercial bank financing (i) at the beginning through the cheap credit program of the government for agricultural loans (ii) in the medium to long run by making use of potential microinsurance and collateral guarantee facilities.

- Cheap credit for agricultural loans: This program is managed by APMA in partnership with the 13 commercial banks. In this scheme, agricultural sector projects approved by these banks at the nominal interest rate of 13-15% are eligible for 11% government subsidy through APMA, thus reducing the net interest rate for the borrower to 2-3%. The BPs selected for seed capital financing will be shared with the commercial banks participating in the cheap credit program, inviting financing proposals from them for the balance projects costs after seed capital financing. The financing proposals will include terms and conditions such as the loan amount, duration, collateral requirements and grace period. The offers from the different banks will be presented to the beneficiary to select the most suitable option.

APMA in coordination with SPs hired by the PMU will coordinate to get financing offers from the commercial banks. The field coordinators supported at the local coordination offices in each region supported by the field facilitators will anchor the engagement with the beneficiaries in that region for selecting the banks.

- Linkages to microinsurance services: In 2017, IFAD supported a 4 years innovation grant for rural risk management implemented by the Microinsurance Centre (MIC), Geneva. Georgia was selected as one of the implementing countries and MIC has identified livestock microinsurance products as its intervention area in rural Georgia. MIC is currently in the process of partner identification in Georgia who will be supported to develop product prototypes and pilot test these products during the 2019-20 period. The pilot testing of these products will coincide with DiMMA's innovation phase. DiMMA will collaborate with MIC and the Georgian microinsurance partners to focus the pilot testing of these products mainly on individual dairy producers (progressive farmers and smallholders) in the DiMMA dairy clusters during the innovation phase followed by priority roll-out of these products in the programme area in general. DiMMA's demonstration and capacity building packages will include microinsurance modules to support market development and roll-out of these products in the programme areas in priority.
- Preliminary discussions at design indicates that the microinsurance products will at the least offer credit guarantee to financial institutions for livestock development loans. Thus, the testing and the roll-out of these products in the programme area will facilitate higher proportion of bank financing of eligible BPs. The proportion of seed capital financing will be adjusted to allow for greater participation of the banks in financing the BPs of value chain actors eligible for programme support.
- Support the development of collateral guarantee facility: The programme will support technical studies to explore possibilities and facilitate the establishment of collateral guarantee facility. Commercial banks require 70-100% of the value of the loan as physical collateral which is a major barrier to access to finance of smallholders. The potential collateral guarantee facility will replace a part of the collateral required from the borrower, with a guarantee from the facility resulting in smallholder farmers without sufficient collateral to access loans from commercial banks. The presence of this mechanism will allow DiMMA to decrease the proportion of seed capital financing and also enable the graduation of programme beneficiaries from grant financing to commercial financing.

- Discussions at design indicates that there is appetite for such a mechanism within the government and development partners such as EBRD has successfully used such mechanisms in the past for SME financing with less than 10% draw on the guarantee funds by the partnering commercial banks. The collateral guarantee mechanism for agricultural loans could be spawned within the APMA with the aim to spin it off as an autonomous initiative in the future that can receive contributions from other donors and the government for facilitating loans to the agricultural sector. The technical study will provide guidelines on the proportion of the guarantee that can be shouldered from the guarantee facility, the adjustment of seed capital financing, operational procedures and legal requirements.

### 32. **Implementation support to value chain actors**

33. **Market development support:** The market will be deeply transformed by the food safety reforms and the progressive phasing out of home-based processing. Consumers demand is also changing. New actors will emerge and they will need identify their targets, their needs, get known, establish marketing channels, and develop marketing strategies. The programme will assist them through a set of market related activities.

34. **On demand marketing support:** the small and medium scale processors supported under the programme, including the home-based processors, will receive marketing support in the scope of the coaching services provided by the private business development service providers, who will need to demonstrate capacities in this domain. In addition to this, if specific needs arise, such as the requirement for a specific market study, these services may be contracted to a private specialized service provider. Other on demand specialized marketing support services such as promotion campaigns (including participation in trade fairs and other marketing events), support to packaging and branding, facilitation of linkages with clients (following the successful example of the wine industry), will also be provided on demand through specialized firms.

35. **Supporting branding and differentiation of premium mountain dairy products:** Georgia has a very old and strong food culture, where cheese play a pivotal role. There are some unique cheese specialities in Georgia, including some ancient recipes that had almost disappeared during the soviet times and that are being re-discovered. The demand for authentic, natural and organic cheese is growing in Georgia, both from tourists and the urban educated population. The important diaspora may also be interested in this kind of differentiated high end products. Despite this trend, there is currently no mechanism in place to ensure differentiation and traceability of these dairy products. However, the legal and institutional framework exists: Georgia has put in place a comprehensive legal and institutional framework to allow registration and use of denominations of origin. A law on appellations of origin and geographical indications is in force, and Sakpatenti, the National Intellectual Property Centre, oversees registering and utilization of appellations. Other possibilities for product differentiation and labelling such as collective branding exist. The programme will therefore explore the options to support the formulation and registration of collective brand, label or denomination of origin for local premium cottage cheese, which will enable small and medium scale processors, especially those in mountainous areas, to differentiate their products and reach high end niche markets; This process will require to establish a group of value chain actors (producers only or or producers and processors), probably in the form of an association, to carry the programme, register the denomination or the brand, and set the standards.

36. **Business and technical coaching:** farm level service providers, aggregators and farmers selected through the call will be enrolled in a hands-on coaching programme, aimed at consolidating the capacities acquired during the initial training sessions. Under this programme, they will be assisted to implement the plan, mobilize the necessary resources (through the programme or from elsewhere), and monitor and analyse progress. For processors, an important aspect of this coaching and hands on training will be food safety and implementation of HACCP approach to ensure compliance with the new regulations.

37. These coaching/business development services will be delivered by the programme field staff for farmers (field facilitators) and by private capacity building service providers (CBSP) for processors and private service providers. The rationale for this is that processors and farm level private service providers will still need these services after the programme closure and should be able to pay for them, which may not be the case for farmers. The programme will therefore support the emergence of CBSPs for business operators, including building their capacities.

38. **Building capacities of specialized private Capacity Building Service Providers:** The programme will support the installation or strengthening of Private Capacity Building Service Providers who will be used to provide support to the service providers and processors and build their capacities. In each of the three regions, a call for proposals will be launched to select existing or projected consultancy firms, who wish to specialize in provision of advisory services the dairy industry. The selected firms will be supported to equip and furnish their office and will be trained on three aspects: (i) business management including support to formulation of BPs and financial brokering (ii) dairy processing including food safety and HACCP aspects, and (iii) marketing techniques. This training will probably take place outside the country unless competent training institutions are identified within the country.

39. **Piloting a mobile based traceability system for milk:** traceability of milk is a key element of its marketing. It is absolutely necessary to introduce a quality-based milk payment system at farm level, that will enable controlling adulteration, presence of contaminants and antimicrobials, and food safety hazards. It is essential in the context of endemic brucellosis which can be transmitted to consumers by this channel. The programme will therefore pilot a mobile based milk traceability system that allows both traceability and management of quality, and management of deliveries and payments to farmers. The system is simple, cost effective, and is already being used in East Africa (Kenya, Tanzania), by large dairies sourcing milk from multiple producers: when the milk is delivered by the farmer, the collector registers on a smartphone the quantity delivered by each farmer and the quality of the delivery (provided by a milk testing electronic device – “lactoscan” type). The same type of data entry is performed when the milk reaches the MCC, and when the truck reaches the factory. These data are centralized at the aggregator level (factory), and the system can both manage the payments to suppliers (according to quantities and quality) and identify and trace the quality/food safety problems: A GIS functionality can identify areas where the milk is of lesser quality, because of mastitis for instance, which allows the dairy to target this region for prevention campaigns. The piloting of this system will be done with a first industrial dairy who volunteers to test it and could then be expanded to the whole region.

#### 40. **Pasture development**

41. Pasture Adaptation Fund (PAF) investments will specifically support activities to improve pasture resilience to climate change and support the adaptation of pastoral livelihoods, consistent with the Pasture Management Plans (PMPs) to be developed by the PUAs (PUAs)<sup>27</sup>. These will complement the Government’s own investments to support enhanced access to pastoral developments in high mountain.

42. These investments are expected to improve or protect the productivity a total of 30 lowland and 15 highland collectively-managed pastoral ecosystems with an estimated total surface of 9,500 ha managed by 76 PUAs benefiting an expected 3,800 households.

43. The following activities, *inter alia*, will be eligible for the Pasture Adaptation Fund:

- Construction or rehabilitation of watering points, particularly in summer pastures increasingly vulnerable to extended drought conditions.
- Restoration of degraded pastures through rotation and fencing, and improvement of vegetation cover and yield with a mix of fodder and highly diverse native plant

---

<sup>27</sup> Please refer to Sub-Component 2.1 for an overview of organizational support, capacity development and technical assistance that will be provided by the project to the PUAs.

species (e.g. grasses, leguminous plants, small bushes), tolerant to climate constraints (e.g. extended summer drought);

- Water management measures to favour pasture resilience through increased water retention and regulation and to improve water balance and decrease evapotranspiration to mitigate the threat of drought (e.g. fences for shade, measures to retain water in soil, drainage, riverine and water spring restoration, protection and shade through reforestation in water points);
- Measures to prevent soil erosion, mudslides and floods, including the plantation of bushes and trees that, besides being effective against soil erosion, can act as a barrier against storms and wind, and serve as a possible source of by-products (fruit, berries, fodder, wood);
- Infrastructure to enhance the value of summer pastures in view of the longer grazing season allowed by increased temperatures and shorter winter season (e.g. livestock shelters and corrals in conformity with EU animal welfare standards and upgrading of facilities for herders);
- Restoration of riverine vegetation (better regulation of water, barrier against floods, improve water quality, source of fodder).

44. The grants to the PUAs would be channelled through APMA in line with the investment design determined by the respective PMPs. The PUAs would be expected to commit to the implementation and the achievement of the targets by signed agreements, which would envisage a phased financing of the PMPs against clearly identifiable milestone indicators. Subject to the PUA's agreement and priorities, a block grant will be provided to each PUA for the implementation of its plan. The exact amount of each grant would be linked to the PUA membership, pasture area, level of poverty, livestock number, and institutional capacity of PUA evaluated against agreed upon indicators.

45. Because it is intended to protect or enhance the value of natural capital that is collectively-managed and publicly-owned, the Pasture Adaptation Fund will not require co-funding from the pasture users. Productive investments resulting in the build-up of private assets will be supported by the Dairy Value Chain Development Facility, with a co-funding expectation. The distinction between the two funds ensures balance between enhancing productivity of the value chain in the short-term and protecting the longer-term flow of ecosystem services in the face of climate change.

46. Road and bridge rehabilitation, to facilitate access to summer pasture, is a crucial condition for the successful exploitation of high mountain pastures. It will be funded and executed directly by the Government, in full coordination with the programme.

#### 47. **Marketing infrastructure development in mountain pastures**

48. This activity will mainly involve the rehabilitation and improvement of 300 kilometres of gravel roads that provide access to summer pastures. Rehabilitation of access roads will: (a) enable farmers to bring their liquid milk twice a day to the nearest village and collection point; (b) enable service providers such as veterinarians to access the summer pastures and deliver services; and (c) alternatively, enable the growing number of smallholder dairy farmers who sell liquid milk, and prefer to keep their lactating cows on-farm, to bring transport machinery and hay from the summer pastures to feed to the animals on-farm. It will also reduce the social isolation of those who provide shepherd services, which can be a deterrent for younger generations.

49. This activity will be funded under the GoG contribution. The PUAs will identify the roads which require rehabilitation through consultation at the stakeholder platforms which will also involve the representatives from the infrastructure development department of the MEPA. The list of the roads which require rehabilitation in a year will be shared and agreed with the regional governments before the start of the financial year.

50. For civil works, overall responsibility for supervision of design services and civil works would be carried out by the PMU Engineers and privately contracted on-site daily supervisors. For irrigation related infrastructure, representatives of the Georgia Amelioration Company, currently mandated by Government for operation and maintenance of all irrigation infrastructures, would approve any request for payment prepared by contractors and the PMU Engineers as well as the final certificate of completed services and works. Day to day supervision of civil works would be carried out by the short-term contracted on-site daily supervisors under the direct guidance of the PMU Engineers. The on-site daily supervisors would be responsible for quantity and quality of works and materials used. PMU Engineers would regularly visit sites during implementation of construction works and be responsible for monitoring quantity and quality of implemented works. Performance based contracts and agreements will be applied as a principle for all recruitments and contracted service providers to assure performance is kept to a high standard.

51. **Component 2: Institutional and organisational development**

52. The expected outcomes of this component are (i) Dialogue between dairy sector stakeholders (ii) Active and sustainable FOs engaged in policy dialogue. It has two sub-components (i) Community mobilisation and stakeholder organisation; (ii) Policy dialogue.

53. **SC 2.1: Community mobilisation and stakeholder organisation**

54. **Community mobilisation and facilitation of stakeholder organisation:** Most projects in Georgia conduct the mobilisation of potential beneficiaries with support from local government (referred to in Georgia as 'self-government') bodies, which either prepare lists of potential beneficiaries, or organize meetings at the municipal level inviting potential beneficiaries. Some also organize village level meetings using programme field facilitators.

55. DiMMA will deploy upto 30 field facilitators depending on the phase of implementation who will collaborate with local government bodies (both technical agricultural and veterinary as well as administrative staff) and local level opinion leaders and resource persons to mobilise communities. They will start their work by identifying existing organising practices (such as, for example, the 'camps' in the summer pastures and their various configurations) and patterns of collaboration among community members, related by family ties and otherwise. The core idea of community mobilisation will be to build on these in order to strengthen stakeholder networks, gradually over time, and to directly and indirectly contact as many potential programme beneficiaries as possible. It will be important to identify, as soon as possible, some of the more progressive farmers and aggregators.

56. The programme field facilitators will be in charge of conducting an information, education and communication (IEC) campaign on the programme and its implementation arrangements, using a range of communication channels (see Appendix 5). They will identify a small number of local "champions" for the programme, possibly youths interested in dairy activities, who will continue their mobilisation and outreach efforts, on a voluntary basis. As an incentive, these volunteers will be provided with training opportunities as well as a limited number of free recharges to their cell phones.

57. **Development of local dairy initiative clusters and platforms:** The community-level entry point for the implementation of programme activities will be 15 local dairy initiative clusters.

58. *Development of clusters:* A local dairy initiative cluster is an economic and geographic entity which includes a production basin, a milk collection centre, as well as up- and downstream value chain actors to which the producers and processors from the basin are connected. The clusters will be rolled out in two stages, six in the innovation phase and nine in the adoption phase. (see Appendix 5). A cluster will typically have 180 and 300 value chain actors (ideally, about 20 progressive farmers and about 250 smallholders) comprising (i) farmers, (ii) service providers from the public, NGO, and private sector, and (iii) aggregators and processors, traders and other market actors. The 'catchment area' of a local dairy initiative cluster will be defined by its participants and will range within a radius of 45 - 90 km for smaller clusters, and around 90 - 120 km for larger ones.

59. *Development of stakeholder platforms:* The main entry point for the planning of programme activities and for addressing policy issues, sectoral, territorial, and so on, will be three dairy initiative cluster platforms (one for each participating Region). Platform participants will be representatives of all types of cluster stakeholders (see (i) to (iii) above) plus (iv) public sector representatives, including from technical and research as well as from municipal institutions. Their common objectives will be to: 1) suggest and endorse potential beneficiary farmers, processors and service providers who meet the eligibility criteria of the programme, in particular young people and women; 2) identify critical technical, institutional and other constraints and opportunities along the local dairy value chains; and 3) identify and facilitate arrangements to address these constraints and take advantage of these opportunities. The programme will mediate and facilitate the negotiation and contracting of these arrangements, and in some cases to contribute financially to their implementation.

60. The platforms will be used to collect and disseminate information and data, including as a conduit for the continuous rollout of the Information, Education and Communication (IEC) campaign. The first activity of the platform participants, will be the identification and analysis of constraints and opportunities related to dairy production and processing, value chain bottlenecks, and related capacity building, investments and/or facilitation needs. With the regular active involvement of the programme field facilitators, platform participants will then define priorities in terms of investments, capacity building, market arrangements, etc. The priorities will be organized into a synthetic document (dairy cluster development plan, which will be a rolling three-year-plan).

61. In order to provide substance for discussion, exchange visits will be organized to showcase innovative organisational innovations for cluster development and policy engagement (see SC 2.2). The platforms will be expected to make contributions to further improve the enabling environment of the dairy sector in Georgia in general, and in mountainous areas in particular. They will be used to monitor the effects and impact of the forthcoming EU norms and standards as well as other policy and regulatory changes affecting local stakeholders. The programme will place particular emphasis on monitoring and evaluating the effects and impacts on IFAD target groups, youths and women, and individuals with less than five cattle and few other livelihood options.

62. Cluster and platform participants will be made up of at least 30 percent women. Special attention will also be given to youth-related matters, and to identifying young champions of change which will network through the clusters and platforms, and beyond. The platforms will be the 'custodians' of DiMMA's targeting policy and mechanism and will be used to guide programme decision-making in terms of poverty focus. In this connection, the platforms will be used to pre-identify and then screen and finally validate applications of potential beneficiaries to be selected for programme support (seed capital and grants). The platforms will designate representatives to the national dairy policy dialogue platform and will identify policy issues that need to be brought to the attention of policy-makers at that level.

63. *Sustainability of dairy initiative clusters and platforms.* The local dairy initiative clusters and platforms could eventually evolve towards trade associations (inter-professional bodies) and/or associations of trade associations. The programme MTR will look into these aspects, and will be informed by a stock-taking exercise (assessment of the status of farmer organisation) that will be prepared beforehand by the PMU. The sustainability of local dairy initiative clusters will be directly related to the number of business arrangements they are successfully engaging in, and thus their overall organisational trajectory. The latter will be characterised not only by their economic but also their managerial and social performance, comprising such issues as perceived transparency, equity, responsiveness, etc.

64. **Development of farmers organisations:** Although DiMMA will support them, cooperatives may be slow to develop as an important player in the modern Georgian dairy sector due to historical reasons and inadequate technical and business support. This is why the clusters and the platforms will be used as a springboard to establish farmer organisations (FO), but only in case there is strong demand from local stakeholders. In all clusters, DiMMA will provide relatively intensive capacity

building to farmer organisations including technical, financial and business skills as well as farmer organisation governance, management and gender training and business skills training.

65. DiMMA will join forces with the ongoing ACDA programme assisting dairy cooperatives based on maturity assessment of cooperatives by the field facilitators. DiMMA may collaborate with a cooperative to complement support on: i) strengthening their milk supply chain and service delivery arrangements; ii) improving outreach towards poor rural households; iv) (re) capitalization through linkages with financial institutions v) exploring options for developing financial services associations and savings and credit cooperatives; and v) business development services.

66. The economies of scale that cooperatives offer to their members typically and most fundamentally revolve around two main attractions, namely, bulk purchase of inputs and bulk marketing of outputs, both of which increase organisational efficiency. To achieve this, DiMMA will support cooperatives so as to strengthen their bargaining power to negotiate better prices for inputs and outputs in the dairy value chain. DiMMA will furthermore call for enhancing the development of FOs related to: 1) ensuring efficient and food safety norm compliant infrastructure facility management; 2) developing the market, both on the supply and demand side, for dairy value chain related services; and 3) increasing business orientation and strengthening private sector partnerships.

67. The involvement of FOs in potential ownership and management of MCCs and associated processing facilities and equipment will be explored through dedicated committees having relevant partnership arrangements with aggregators. Similarly, involvement of FOs in ownership and management of animal health and AI services, mechanisation services, fodder production and conservation will be explored. The FOs will provide preferential and affordable access to members and potentially to non-members to such goods and services. Likewise, involvement of FOs in business development services will be explored such as developing different types of marketing initiatives at cluster level to provide access to members to such services in affordable terms.

68. *Development of PUAs.* DiMMA will identify existing groups of pasture users and promote the development of more formal Pasture Users Associations (PUAs) in the dairy initiative clusters. PUAs will be supported to design, develop and implement community-based Pasture Management Plans (PMP) that integrate EU approximation requirements as well as adaptation to climate change and disaster risk-reduction (DRR) measures to increase the resilience of this sector.

69. The programme will support the development of community-based pasture assessment maps to help the PUAs prepare effective community PMPs. PMPs should cover areas such as vulnerability assessment; livestock inventory; pasture assessment map; annual pasture use plan and map; pasture improvement plan and infrastructure improvement plan. Maps will be prepared by the PUAs with technical backstopping from the capacity building service provider hired by the programme. Each PUA will appoint one member-elected volunteer who will coordinate with the service provider and support the implementation of the PUAs. The volunteers will receive a small incentive stipend to cover transport and communications expenses. The service provider will train the PUAs in areas such as pasture assessment and mapping and management and forage production and conservation. The possible impact of climate change on pasture resources will be taken into account in these trainings. Also, DiMMA will contribute to PUAs' institutional development through supply of basic equipment (computer & software, printer, digital camera, GPS), organizing exchange visits to demonstration sites and the delivery of training to PUA members.

### **Subcomponent 2.2: Policy dialogue**

70. **Support to national dairy policy dialogue platform:** The programme will support the MEPA to establish a National dairy policy dialogue forum which will be convened by MEPA and supported and serviced by the programme. The forum will gather representatives of Government, producers, Georgian Farmers' Association; national level service providers; processors, research institutions; NGOs and donors. The Dairy Forum would be established in the second year. DiMMA will support the cost of meetings and the participation of stakeholders from the programme area.



71. The Forum will on public policy and regulatory and programme framework for the dairy sector. It will provide an opportunity for (i) the VC actors to raise their specific policy issues and concerns with Government; (ii) the Government to consult value chain actors on proposed legislation associated with the ongoing reforms associated with the with the process of legal approximation with EU standards; (iii) the Government to enter into dialogue with VC actors on key national level policy issues that it has identified as priorities e.g. pasture policy and management, control of public good diseases (e.g., compensation mechanism for brucellosis), the impact of food safety, hygiene, and animal welfare regulation on farmers and small-scale dairy processors (iv) the Government and value chain actors to discuss the impacts of already-implemented regulations, on the sector and individual groups, and the steps needed to address any negative impacts.

72. The forum discussions may recommend the development of specific policies or regulations, for which the programme will support of international technical assistance, organization of stakeholder consultations and workshops. Such policy developments, if endorsed by the Government, may include (i) Pasture policy: for better regulation of pastures and rangeland ecosystems - summer, spring/autumn and winter pastures, equitable allocation of pasture rights, and a mechanism for better aligning stocking rates with pasture carry capacity; (ii) Climate Change Adaptation strategy for the livestock sector - policy dialogue on climate change adaptation/mitigation, disaster risk reduction and environmental sustainability. This can include development of a sectoral adaptation plan for the livestock sector, to be developed in parallel and in conformity with the overall National Adaptation Strategy that is currently being finalized.

73. **Studies to provide evidences to guide policy dialogue:** The programme will provide facts and evidence to the National Dairy Forum to document the policy dialogue. This will be achieved through various means: organization of policy targeted exchange visits, commissioning of background studies to inform the discussion, and provision of high-level strategic and technical assistance to guide policy and strategy formulation. The discussions held in local and regional forums will also provide feedback on policy implementation from the grassroot and value chain levels.

74. Specific studies/exchanges of interest may include – but are not limited to – (i) Central Asia study tour (Kyrgyzstan and/or Tadjikistan) to find out about existing structures similar to the proposed PUAs, support services available to them, challenges faced and achievements (ii) Alpine study tour (Switzerland and/or Italy) to learn about mature dairy value chains producing cheese in a similar mountain environment in full compliance with European standards of animal welfare and food safety (iii) analysis of the economic impact of EU food safety and animal welfare regulations (iv) Pilot testing of alternative organizational models for pasture management on public and private pastures. This may be conducted in collaboration with the Regional Environment Centre for the Caucasus (RECC), a national organization that has acquired significant expertise on pasture management through numerous past and on-going projects in collaboration with the Government, GIZ, UNEP and IFAD among others.



## Appendix 5: Institutional aspects and implementation arrangements

### Institutional and organizational framework

1. The Ministry of Environmental Protection and Agriculture (MEPA) will be the lead executing agency through the Programme Management Unit (PMU) established in the MEPA Department of External Relations which manages IFAD and World Bank funded projects. The PMU will be adequately staffed with the requisite technical specialists who will be responsible for day-to-day management and implementation of programme activities, covering overall management/supervision, fiduciary aspects, and monitoring and evaluation.
2. Other Government of Georgia (GoG) agencies with responsibilities for administrative and technical aspects of the programme include APMA and ACDA, among others. DiMMA may be co-financed by an Implementation Support NGO which would be responsible for community mobilisation and facilitation of stakeholder organisation under Component 2 as well as for prompting the development of farmer organisations. The Implementation Support NGO will be selected based on its experience and successful track record in inclusive development of the dairy value chain, as well as the ability to make a significant contribution to programme financing. The NGO will provide a wide range of technical support for both components.

### Implementation approach

3. **Private sector orientation.** DiMMA will be participatory and inclusive, market driven and private sector oriented, with special emphasis on value chain and natural pasture governance.
4. **Cluster development approach.** DiMMA will follow a cluster development approach in order to facilitate sufficient and regular availability of high grade milk to sustain the processors and milk collection centres operating in the programme area. It will identify the relevant stakeholders in a cluster (e.g. producers, service providers, aggregators, municipalities, NGOs, etc.) and support their organisation in stakeholder platforms and farmer organisations through a bottom-up process. This process will aim at facilitating the consultative identification and prioritisation of investments for cluster development and for the emergence of business-oriented farmer organisations. It will support the awareness and capacity building of stakeholders by exposing them to programme supported demonstrations of innovative and safe milk production technologies, pasture management models and aggregation mechanisms that link producers to processors in the clusters.
5. **Alignment on food safety and animal health and welfare.** Georgian national regulations in the dairy sector will be aligned to those of the EU in preparation for the Deep Comprehensive Free Trade Agreement (DCFTA). DiMMA will target and support milk producers to adopt safe and improved milk production technologies and will link these production systems to start-up service/input suppliers promoted by the programme and to aggregators at the cluster level. These interventions will lead to the supply of a critical volume of safe and high grade milk required to sustain the aggregators at the cluster level and generate economies of scale for all actors. Within the overall scope of the cluster development approach, the programme will especially focus on developing niche markets for traditional cheese and other milk products, especially those of high value and derived from milk produced from grazing herds in mountain pastures.
6. **Policy dialogue.** Policy dialogue and policy engagement will be stimulated to address critical policy challenges affecting dairy value chain development.
7. **Phasing.** To ensure that DiMMA is able to “hit the ground running”, during the first year immediately after programme effectiveness, a consultancy firm will be contracted to prepare a study that will include a preliminary dairy value chain mapping and stakeholder assessment exercise. The study will propose where to locate the first six local dairy initiative clusters (two per region) in order to start activities including the demonstration sites for model milk collection centres. During PY2, three

dairy initiative cluster platforms (one per region) will be added, to be identified by the field facilitators; they will be used as a consultation forum to choose where to locate the second round of nine local dairy initiative clusters (three by region).

**Table 18: Phased approach**

Activity	Programme Year								The number of FF will be 6 at the beginning, two in each of the 3 pilot clusters, X from year 3 onwards.	
	Start-up		Consolidation				Exit			
	2019	2020	2021	2022	2023	2024	2025	2026		
<b>Roll-out clusters/platforms</b> of			2	2	2	2				
			0	0	0	0				
			2	2	2	2				
			1	2	3	4				
1. Imereti	2 clusters									Identified by the study
2.		Cluster platform							Identified by the FF	
3.		3 clusters							Identified by the platform	
4. Samegrelo-Zemo Svaneti	2 clusters									Identified by the study
5.		Cluster platform							Identified by the FF	
6.		3 clusters							Identified by the platform	
7. Samtskhe-Javakheti	2 clusters									Identified by the study
8.		Cluster platform							Identified by the FF	
9.		3 clusters							Identified by the platform	

8. Planning. The first two AWPB will be prepared by the PMU. After the first two or three years, as determined by GoG and IFAD during regular supervision and implementation support missions, planning responsibilities will be shifted towards local dairy initiative cluster platforms.

9. **Public, Private, Producer Partnership (4Ps) approach.** DiMMA investments in the clusters will be based on 4Ps implementation arrangements aimed to develop profitable marketing linkages between sustainable dairy aggregators (SMEs, proprietorships and cooperatives) and target milk producer households that increase the income of the latter. DiMMA will broker these linkages, and make them inclusive and competitive by addressing the challenges related to safety, regularity and volume of milk supply from the target households.

10. In order to implement the 4Ps approach, DiMMA will facilitate the development of BPs at three levels (i) producer level (ii) service provider level and (i) aggregator level:

- Producer level BPs will focus on the adoption of modernised and hygienic milk production systems by the producers in a cluster to ensure regular supply of high grade milk required by aggregators in the cluster;
- Service provider BPs will aim to increase the supply of inputs and services, such as fodder and veterinary care, to support modernised and hygienic milk production systems at the producer level;
- Aggregator level BPs will dwell on increasing the demand for high grade milk at the cluster level and on mechanisms to meet this demand through sustainable linkages to milk producers in these clusters.

11. The BPs developed for the different value chain actors will be financed through contractual arrangements between the aggregators (Private), the programme, government bodies and relevant municipalities where relevant (Public), target households (Producer) and farmers' organisations (Public/Private):

- Pilots of production and aggregation models will be done only in 6 clusters during the first 3 years of the programme, then the models will be replicated in the 15 clusters later on;
- Cluster stakeholder platforms will be set up at the beginning of the programme to enable VC actors to identify their priority constraints in a participatory manner, and propose value chain arrangements such as 4Ps;

- As for PUAs and pasture investments, support to creation of the associations and management of the PMP will be priorities of the first phase, investments will come only once this institutional set up is in place.

### Programme Organization

12. DiMMA will use several of the implementation arrangements already successfully employed by IFAD's ongoing AMMAR programme, with a few refinements in staffing and with respect to the specialisation of service providers. The Programme will be executed by the Ministry of Environmental Protection and Agriculture, through the Programme Management Unit (PMU) of the Department of External Relations. The PMU will establish a regional office (RO) in Kutaisi which will provide oversight to local coordination office (LCO) in each region. The LCO will be housed in the municipality or other government premises. Communication channels for the programme's IEC campaign will include printed leaflets and various electronic media.

13. The Programme Director will be based at the PMU along with the staff members responsible for policy issues, procurement, fiduciary aspects, and M&E functions. The PMU will establish a regional office (RO) in Kutaisi which will provide oversight to local coordination offices (LCO) in each region.

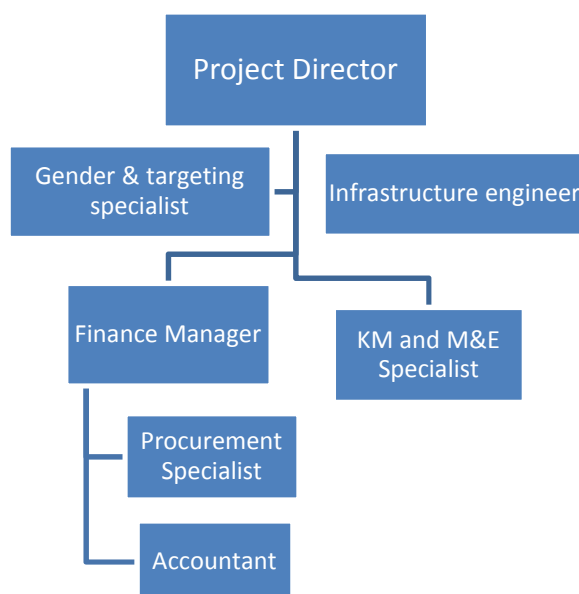
14. **Programme coordination.** The Ministry of Finance (MOF) is the official Representative of Georgia as the Borrower / Recipient. In this role MOF will be responsible for: (i) providing inter-agency coordination when required; (ii) fulfilling the government fiduciary oversight and management responsibilities; and (iii) providing sufficient counterpart contributions in a timely manner to finance agreed on programme activities.

**Table 19: Component-wise Roles and Responsibilities**

Component 1	Activity	Lead responsibility within Programme	Goods/services delivered in the field by
Sub-component 1.1: Innovations, demonstrations and capacity building	Act 1.1.1: Piloting and demonstration of aggregation / hubs models	Regional Coordinator / Agribusiness Specialist	Field coordinators supported by field facilitators
	Act 1.1.2. Demonstration and dissemination of technical production innovations	Regional livestock specialist	Field coordinators supported by field facilitators
	Act 1.1.3. Capacity building of Value Chain Actors	Regional Coordinator / Agribusiness Specialist & Regional livestock specialist	Field facilitators for farmers capacity building service providers for other VC actors (enterprises)
Sub-component 1.2: Supporting investments and strengthening and stakeholder linkages to value chain	Activity 1.2.1. Identification and selection of value chain actors	Regional Coordinator / Agribusiness Specialist & Regional livestock specialist	Field facilitators for farmers capacity building service providers for other VC actors (enterprises)
	Activity 1.2.2: Development and financing of BPs of value chain actors		
	Activity 1.2.3: Support to implementation of BPs of value chain actors		
	Activity 1.2.4: Market development support	Regional Coordinator / Agribusiness Specialist	Regional Coordinator / Agribusiness Specialist + consultants
<b>Component 2</b>			
Sub-component 2.1: Community mobilisation and stakeholder organisation	Act 2.1.1: Community mobilisation and facilitation of stakeholder organisation	Field coordinators	Field facilitators/Consultants
	Act 2.1.2: Development	Regional Coordinator /	Field facilitators/Consultants/Service

	of local dairy initiative clusters and platforms	Agribusiness Specialist/ Field coordinators	providers (training)
	Act 2.1.3: Development of FOs	Regional Coordinator / Agribusiness Specialist/ Field coordinators	Field facilitators/Consultants/Service providers (training)
Sub-component 2.2: Policy dialogue	Activity 2.2.1: Supporting local dairy initiative platforms	Programme Director	Field Coordinators/Consultants
	Activity 2.2.2: Supporting engagement of value chain actors in national policy dialogue	Programme Director	Field Coordinators/Consultants

**Figure 9: Programme coordination structure at national level**



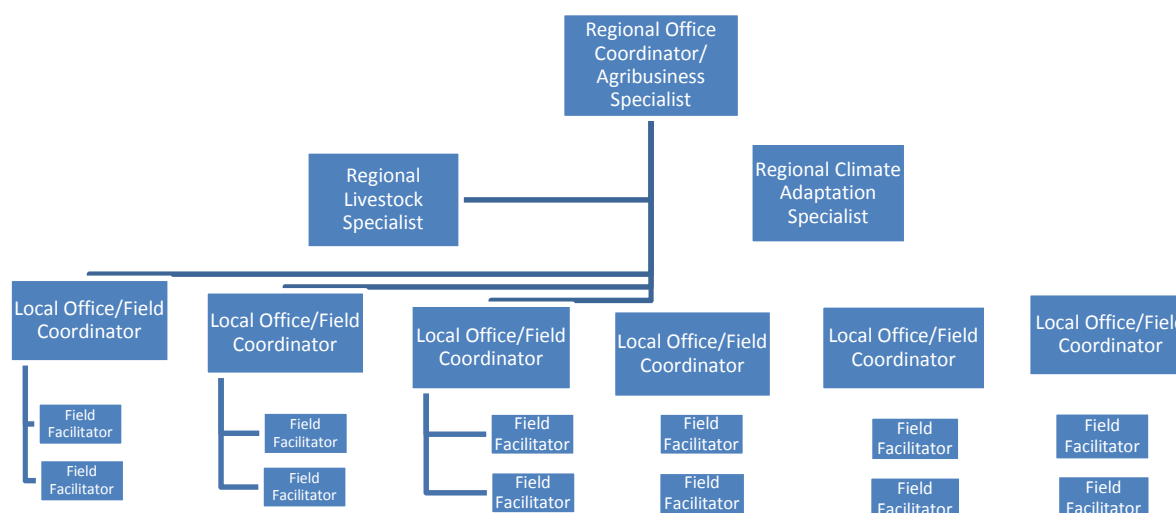
15. **Programme management.** The PMU will hire two types of service providers, farm level service providers and capacity building service providers. Farm level service providers will be used for the technical services and training to be delivered under Component 1. Capacity building service providers will be used under Component 2 for: (i) training and capacity building of different stakeholders at the cluster level on institutional development and farm modernisation activities; (ii) linking target households and other value chain actors to sources of finance for adopting farm modernisation activities; and (iii) providing implementation support to the value chain actors towards successful implementation of farm modernisation, pasture development and institutional development activities. In order to ensure technical excellence of the services delivered by the service providers the PMU will partner with an international Implementation Support NGO which will also be invited to co-finance these services wherever relevant..

16. Direct Supervision and Financing Administration arrangements will be similar to the ongoing IFAD programme (AMMAR). A fiduciary assessment for the Centre was carried out during the previous design process (2014) and is regularly validated during supervision and implementation support missions. A Programme Implementation Manual (PIM) will be prepared as part of the start-up activities, to assist the programme team with guidance for planning, implementation and monitoring of activities, the procurement of technical assistance and services, and the programme investments.

17. **Regional coordination.** The RO will be headed by a Regional Coordinator / Agribusiness Specialist supported by a livestock technical specialist. The LCOs will be managed by a field coordinator who will be supported by a group of field facilitators. The LCOs will be housed in the municipality or other government premises (such as, e.g., the RICs).

18. At the local level DiMMA will work closely with municipal staff, both administrative and technical, in step with Georgia’s unfolding decentralisation process – it will especially emphasise the downward accountability of public service providers, and of private service providers contracted by the programme. Cluster development will be embedded within a broader territorial development approach focusing on the specificities of mountainous areas as outlined under the laws and policies dedicated to such areas. In this context, and with a view to promoting infrastructure-related PPPs, dairy initiative cluster platforms will lobby with local (self-) government units for strategic road and bridge rehabilitation, for dairy initiative cluster development in general, and to facilitate access to summer pastures in particular.

**Figure 10: Programme management structure at regional and local level (RO and LCO staffing)**



### Roles and responsibilities of implementation partners

19. The roles and responsibilities of the different partners will be as follows:

20. Programme responsibilities (Public): The PMU will be responsible for planning, monitoring and oversight, ensuring that programme resources are being used as agreed and planned. DiMMA will facilitate linkages between target households and aggregators. The programme will: (i) provide training, advisory services and implementation support to target households and FOs towards the adoption of animal husbandry, milk production, food safety, pasture management and business management practices; (ii) organise the demonstration of production techniques, aggregation models, pasture management models and climate smart technologies to motivate target households to adopt farm upgradation/modernisation activities; (iii) supply, matching grants (seed capital) to:

- Target households: for kick starting the modernisation of their production systems by supporting fixed assets and infrastructure requirements towards the adoption of innovative technology (e.g. improved animal nutrition and health care) and implementation of food safety requirements;

- Young entrepreneurs: for initiating service delivery models in areas such as mechanisation, feed and input supply, artificial insemination, and veterinary services. Additionally, to support pasture related alternative livelihood activities for the youth that reduce grazing pressure on the pastures;
- Aggregators: to encourage them to expand their milk collection and processing chains to the production basins with higher concentration of target households and for developing niche market production systems such as pasture collection and processing facilities;
- Pasture user associations: to adopt pasture improvement measures, supported by grants, to increase pasture productivity and adaptation to the effects of climate change.

21. **Aggregator responsibilities (Private Individual/Collective):** The aggregators will be responsible for organising all its product marketing aspects, private infrastructure, working capital investments and operational requirements. They will participate in the training and capacity building of producers and service providers. They will be encouraged to participate in animal nutrition (feed fodder supply) and health care models especially to secure higher production and supply of winter milk. They will also partner in the targeting and inclusion of smallholder producers in the business models.

22. **Beneficiary responsibilities (Private Individual/Collective):** The targeted milk producer households will focus on the modernisation of their production systems and commit to the adoption of the new food safety requirements. They will: (i) co-finance the start-up investments in the modernisation of their farms initiated by the matching grants; (ii) supply the agreed quantities and qualities of milk to the aggregators; and (iii) participate in strengthening the farmer organisations by lobbying and advocating for more inclusive approaches.

23. **Farmers' organisations responsibilities (Private Collective):** They will be responsible for negotiating better terms and conditions for their members. They will adopt measures to increase the membership of target households, strengthen their organisation and improve services to members (and, possibly, non-members). Moreover, they will assist members to meet the quality and quantity requirements of the aggregator by providing them access to: (i) technical and business advisory services; and (ii) inputs. They will have an important role in the sustainable development of pasture resources by piloting pasture management models and implementing pasture management plans. Additionally, through the clusters and platforms, they will be responsible for identifying experiences, constraints and success stories that can usefully support policy dialogue.

24. **External service providers (SPs):** They will be responsible for providing state-of-the-art training on both business skills and technical skills, with a view to upgrading the dairy value chain and contributing to make it more efficient and inclusive. Performance based contracts and agreements will be used with all external SPs.

### **Implementation processes**

25. **Start-up workshop.** The timing of the start-up WS should take into account the seasonal nature of the dairy value chain in the DiMMA programme area. It will be used to validate: 1) the programme implementation arrangements; 2) the roles and responsibilities of the different implementation partners, including on M&E; and 3) the study on the location of the first six local dairy initiative clusters. The PMU will present and discuss the first AWPB, and organise a Q&A session with stakeholders.

26. **Community mobilisation and cluster facilitation.** The PMU and/or Implementation Support NGO will deploy 39 field facilitators (FF), who will collaborate with local government bodies (both technical agricultural and veterinary as well as administrative staff) and local level opinion leaders and resource persons to mobilise communities. The programme field facilitators will be in charge of conducting an information, education and communication (IEC) campaign on the programme and its implementation arrangements, using a range of communication channels. They will identify a small number of local "champions" for the programme, possibly youths interested in dairy activities, who will continue their mobilisation and outreach efforts, on a voluntary basis. As an incentive, these



volunteers will be provided with training opportunities as well as a limited number of free recharges to their cell phones.

27. As soon as recruited and deployed in the field, the programme field facilitators will fine-tune the mapping/assessment (see Attachment 9 for draft TORs) and work with the participants of the clusters to conduct participatory value chain diagnostic assessments, which will be used as the basis for the dairy cluster development plans. During the final two years of programme implementation, their roles and responsibilities will be handed over to local volunteers identified by each of the clusters. The field facilitators will regularly update the stakeholder maps and will be expected to keep note books in which they will annotate and keep track of their community mobilisation efforts.

28. Building capacities of specialized private Capacity Building Service Providers. The programme will support the installation or strengthening of Private Capacity Building Service Providers who will be used to provide support to the service providers and processors and build their capacities. In each of the three regions, a call for proposals will be launched to select existing or projected consultancy firms, who wish to specialize in provision of advisory services the dairy industry. The selected firms will be supported to equip and furnish their office and will be trained on three aspects: (i) business management including support to formulation of BPs and financial brokering (ii) dairy processing including food safety and HACCP aspects, and (iii) marketing techniques. This training will probably take place outside the country unless competent training institutions are identified within the country.

29. **Knowledge management / innovation systems.** The Implementation Support NGO will prepare, in collaboration with IFAD and GoG, and implement, a KM and innovation strategy as part of Sub-component 2.2: Policy dialogue.

30. **Annual Stakeholder Evaluation Workshops.** These will be held starting in PY2; they will be convened by the LCOs.

31. **Adaptation Facility (AF):** IFAD will approach the Adaptation Fund to obtain additional grant financing for the programme. Adaptation Fund criteria mandate that the funding be used specifically for climate adaptation activities benefiting vulnerable segments of the population. Within the framework of DiMMA, the Adaptation Fund grant will primarily be allocated towards climate-smart pasture improvement investments and livelihoods diversification, as described under Sub-component 1.3, and their supportive activities: community mobilization, capacity development, design of pasture management plans. At the time of DiMMA Board Approval, Adaptation Fund has not yet been fully secured. Should AF funding not be granted, Sub-Component 1.3 will be significantly scaled back.

32. **Grant mechanism.** The matching grant components (the DVCF) will have a specific matching grant manual -based on the manual prepared by IFAD and GoG for the implementation of the AMMAR programme through APMA (see Attachment 1) - setting out the process for grant application, evaluation, disbursement, and monitoring, and also including forms/templates to be used and dedicated sections for financial management and procurement. Where possible, simplified procurement rules should be used for the acquisition of goods and services under matching grants. The Agriculture Programme Management Agency (APMA) will be contracted to administer the DiMMA matching grant funds.

33. **Grant flow of funds.** The grant payment mechanisms will be based on those used for the AMMAR programme, which has been adapted to meet IFAD Grant Management guidelines.

34. Experience from other rural credit and grant activities in Georgia and other IFAD programmes indicate there are three main types of risks that could impact on implementing the grant activities. These are:

- (a) **(Lack of) transparency.** This will be addressed using guidelines provided in the IFAD Matching Grants Technical Note (2012) supplemented by IFAD financing administrative procedures.
- (b) **Elite capture.** This will be mitigated through small grant size (which will make grants less attractive to elites), application of self-targeting mechanisms, sliding scale for grants (with

lower percentages of support to bigger projects) and clear definition of target groups and eligibility criteria.

- (c) “**Micro-management**”. This will be avoided using grant approval sessions during which, based on APMA experience, batches of applications will be screened and processed immediately.

35. **Grant management.** Grant management of the Dairy Value Chain Development Facility (DVCF), and the Pasture Adaptation Fund (PF) will be undertaken by the Agriculture Project Management Agency (APMA) or similar institution acceptable to IFAD. APMA was established in 2012 by Ministry of Environmental Protection and Agriculture in order to promote rural development in Georgia. It implements and manages variety of projects initiated by the Ministry of Environmental Protection and Agriculture. APMA is already in charge of managing matching grants funds (Program of Agro-production Promotion) for another IFAD programme, “Agriculture Modernization, Market access and Resilience programme “(AMMAR) programme. The role of APMA will be to manage the grant, including receiving, and reviewing applications, allocating and transferring funds, and controlling their proper use. In order to ensure a proper segregation of tasks and avoid conflict of interests, APMA will not be in charge of preparing applications and BPs, as well as implementation reports. This will be done by the Implementation Support NGO, with the support of the field facilitators.

36. **Dairy Value Chain Development Facility (DVCF).** The programme will establish a Dairy Value Chain Development Facility, to provide financial support for targeted private investments at various levels of the value chain: milk collection and cooling facilities (milk collecting centres, including buildings and cooling equipment in some cases), small scale processing units (equipment only), energy saving technologies, fodder processing and conservation (silage making equipment), feed manufacturing (machinery) and other areas as appropriate. The facility will co-finance high priority private infrastructure and equipment that are too risky for an entrepreneur or a bank, either because they are too innovative, because of the legal status of the business operator (many financing schemes are accessible to cooperatives, but not to individual entrepreneurs) or because of the absence of collateral.

37. In order to access DVCF funds, beneficiaries will have to formulate and submit an application and a BP, including a financing plan; for aggregators and service providers (mechanization and Vets/AI), the specialized private Capacity Building Agents will assist the applicant to develop this document, and to mobilize co-financing from other sources. It will then assist the beneficiary to implement its investment programme. For farmers, this role will be fulfilled by the programme field facilitators. Beneficiaries– whether farmer or other value chain actor – will have to provide a minimum matching contribution appropriate to investments required and position in the value chain. The level of the matching contribution, approval criteria, maximum size of grant, etc., are outlined below.

38. The BPs will be submitted to APMA for co-financing under the DVCF. APMA will check if all conditions are fulfilled for funding under DVCF. Conditions will include administrative requirements, conclusive BP, and mobilization of the beneficiary participation. The matching grant will be released only if the beneficiary participation can be effectively mobilized.

39. Once application/BPs have been accepted by APMA for funding under the DVCF, and if the BP foresee co-financing from a financial institution (loan), APMA will transfer the BP to the banks it is partnering with.

40. Grant screening criteria: DVCF. The following criteria will apply for selection of beneficiaries to the DVCF. A more detailed grant manual will be formulated after effectiveness, based on the one already developed for AMMAR (see Attachment 1).

41. Types of entities that qualify:

- (a) Farmers (individual or organized in formal groups);
- (b) Private business operators (registered): farm level service/input providers and small and medium scale processors (less than 5 tons daily capacity);

- (c) Cooperatives: services and/or market access;
  - (d) Obs: Industrial processors (more than 10 tons daily capacity) are **not** eligible for DVCF grant;
  - (e) Obs2: farmers can be eligible as service providers too especially for provision of mechanization service provision, but also as aggregators (managers of MCC, processor).
42. Type of programme supported:
- (a) Provision of fodder meccanization services: hay baling services, silage making services, urea treatment services;
  - (b) Provision of AI services;
  - (c) Provision of veterinary services;
  - (d) Milk collection; only if owned and managed by cooperatives or small-scale processors (less than 10 tons capacity). Industrial processors (more than 10 tons) are not eligible for VCD grant;
43. Milk processing: home base processing (150 to 500 kg capacity), and medium scale processing (up to 10 tons).
44. **Pasture Adaptation Fund (PAF).** The PAF will specifically finance activities to improve pasture resilience to climate change and support the adaptation of pastoral livelihoods. This support will be consistent with the Pasture Management Plans (PMPs) to be developed by the Pasture Users Associations (PUAs)<sup>28</sup>.
45. These investments are expected to improve or protect the productivity a total of 30 lowland and 15 highland collectively-managed pastoral ecosystems with an estimated total surface of 4,500 ha managed by 45 PUAs benefiting an expected 2,250 households.
67. **Grant screening criteria: PAF.** The following activities will be eligible for the Pasture Adaptation Fund:
1. Construction or rehabilitation of watering points, particularly in summer pastures increasingly vulnerable to extended drought conditions;
  2. Restoration of degraded pastures through rotation and fencing, and improvement of vegetation cover and yield with a mix of fodder and highly diverse native plant species (e.g. grasses, leguminous plants, small bushes), tolerant to climate constraints (e.g. extended summer drought);
  3. Water management measures to favour pasture resilience through increased water retention and regulation and to improve water balance and decrease evapotranspiration to mitigate the threat of drought (e.g. fences for shade, measures to retain water in soil, drainage, riverine and water spring restoration, protection and shade through reforestation in water points);
  4. Measures to prevent soil erosion, mudslides and floods, including the plantation of bushes and trees that, besides being effective against soil erosion, can act as a barrier against storms and wind, and serve as a possible source of by-products (fruit, berries, fodder, wood);
  5. Infrastructure to enhance the value of summer pastures in view of the longer grazing season allowed by increased temperatures and shorter winter season (e.g. livestock shelters and corrals in conformity with EU animal welfare standards and upgrading of facilities for herders);
  6. Restoration of riverine vegetation (better regulation of water, barrier against floods, improve water quality, source of fodder).

---

<sup>28</sup> Please refer to Sub-Component 2.1 for an overview of organizational support, capacity development and technical assistance that will be provided by the project to the PUAs.

46. The grants to the PUAs would be channelled through APMA in line with the investment design determined by the respective PMPs. The PUAs would be expected to commit to the implementation and the achievement of the targets by signed agreements, which would envisage a phased financing of the PMPs against clearly identifiable milestone indicators. Subject to the PUA's agreement and priorities, a block grant will be provided to each PUA for the implementation of its plan. The exact amount of each grant would be linked to the PUA membership, pasture area, level of poverty, livestock number, and institutional capacity of PUA evaluated against agreed upon indicators.

47. Because it is intended to protect or enhance the value of natural capital that is collectively-managed and publicly-owned, the Pasture Adaptation Fund will not require co-funding from the pasture users. Productive investments resulting in the build-up of private assets will be supported by the Dairy Value Chain Development Facility, with a co-funding expectation. The distinction between the two funds ensures balance between enhancing productivity of the value chain in the short-term and protecting the longer-term flow of ecosystem services in the face of climate change.

48. Linkages to financial institutions. Young farmers and entrepreneurs, face shortage of capital and limited access to loans due to lack of collateral and credit history. DiMMA would provide special support to young farmers and entrepreneurs in linking them with financial institutions, which would offer non collateral financial products. While securing finances, these beneficiaries could access either DiMMA matching grant funds, or DANIDA Retaining Rural Talent to Accelerate Inclusive Growth and Employment Programme, managed by the IFAD Project and APMA, which is providing matching grants to young entrepreneurs in agriculture sector (with a 40 percent grant element).

## **Attachment 1: Excerpt from the grants manual developed by IFAD and GoG for the implementation of the AMMAR programme through APMA<sup>29</sup>**

### Article 7. Selection Criteria for Program Beneficiaries

#### **1. for Primary Beneficiaries the selection criteria are as follows:**

- a) a natural person who is a citizen of Georgia and a sole proprietor owning or holding a long-term lease from the government for 0.1 -10ha agricultural land registered in the National Agency of Public Registry (NAPR). In case of leasing, the remaining lease period shall be no less than 10 years. The lease agreement shall be registered in NAPR;
- b) an agricultural cooperative in which no less than 70% of the members contributed their agricultural land plots of 0.1-10ha to their cooperative. The total area of agricultural land belonging to a cooperative shall not exceed 150ha. A cooperative may be a long-term leaseholder of state lands. In case of leasing, the remaining lease period shall be no less than 10 years. The lease agreement shall be registered in NAPR;
- c) if the co-financing is intended for the construction of an irrigation scheme, the beneficiary shall have an access to a renewable source of irrigation water maximum 500m away from the outside perimeter of the plot. In case of a cooperative, the land plots owned/used by a cooperative shall be adjacent;
- d) if the co-financing is intended for a vegetable garden, the saplings shall be purchased from a nursery garden selected under "Plant the Future" Program. If this nursery garden cannot provide the required varieties, the Beneficiary has the right to purchase the saplings from other suppliers through importing. In this case, the beneficiary shall furnish to APMA an invoice of such a purchase.

#### **2. for Secondary Beneficiaries the selection criteria are as follows:**

- a) at least two-year experience of agricultural product processing;
- b) ownership of a nonagricultural land plot and an enterprise on it, which shall be registered in the name of the Beneficiary in NARP.

### Article 8. Submittals by the Beneficiary for Co-financing

1. A filled out applications form (Annex No1 for Primary Beneficiaries).
2. a certificate issued by the relevant regional office of MEPA confirming an access to a renewable source of irrigation water maximum 500m away from the outside perimeter of the plot.
3. A BP for co-financing (Annex No2 for Secondary Beneficiaries).
4. In case of a legal person, a statement from the Registry of Commercial and Noncommercial Legal Persons
5. In case of a cooperative, a certificate issued by the Agricultural Cooperatives Development Agency.
6. A copy of an identification document (in case of a legal person an ID document of the director).
7. A certificate issued by the Legal Person of Public Law – Revenue Service confirming the absence of indebtedness.
8. Confirmation of the ownership of a land plot (a statement from the Public Registry and a cadastral map).
9. In case of leasing – a lease agreement.
10. Confirmation of the availability of co-financing funds – a statement from the bank about the deposit.
11. Confirmation of procurement.
12. The Beneficiary's bank details.

### Article 9. Approval and Disbursement of the Co-financing

APMA shall establish the procedures of co-financing approval and disbursement.

### Article 10. Program Monitoring and Reporting

---

<sup>29</sup> The title of this document is "Co-Financing Program For Agriculture Modernization, Market Access And Resilience (Ammar) Project; Non-Commercial Legal Entity – Agricultural Projects Management Agency (APMA); May 2016".

1. APMA and MEPA shall jointly monitor the Program. APMA shall establish the monitoring procedures.
2. APMA shall prepare monthly progress reports and furnish them to MEPA.

Annex 1

### Application Form

Application Submission Date	
Application Registration No	
Comment by APMA co-financing officer	

#### 1. General Information

1.1. Name	
1.2. Sex	Female Male
1.3. Age	<30 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> > 30 <input type="checkbox"/> <input type="checkbox"/>
1.4. ID No	
1.5. Contact Tel	
1.6. Additional Tel	
1.7. Residential Address	
1.8. E-mail or zip code	
1.9. Applicant's Status	Legal Person Natural Person

*Note: Please specify the status across Paragraph 1.9. In case of a natural person, please omit the next paragraph and move to paragraph 3.*

#### 2. Legal person

2.1. Name	
2.2. Registration No <i>(in case of a cooperative)</i>	
2.3. Representative's name	
2.4. ID No	
2.4. Contact Tel	
2.5. Legal Address	
2.6. Actual Address	
2.7 Is the legal person presently engaged in commercial activities?	yes <input type="checkbox"/> no <input type="checkbox"/>
2.9. Turnover for the last 2 (two) years	
2.10 Note (optional)	

#### 3. Information on Land Plots

3.1. Region, municipality, address	
3.2. cadastre Code	

3.3. Ownership form	Owned Leased Number of years: <i>In case of leasing specify the number of the remaining years according to the lease agreement</i>
3.4. Land plot area, ha	
3.5. Is the plot fenced?	yes <input type="checkbox"/> no <input type="checkbox"/>
3.5. Crops	Peaches <input type="checkbox"/> Persimmons <input type="checkbox"/> Apples <input type="checkbox"/> Kiwi <input type="checkbox"/> Vegetables ( <i>specify the variety</i> ) Bay leaves <input type="checkbox"/> Honey <input type="checkbox"/>
3.6. Are you going to install an irrigation system?	yes <input type="checkbox"/> no <input type="checkbox"/>
3.7. If yes, please specify the water source and the distance to the plot.	River <input type="checkbox"/> Canal <input type="checkbox"/> Lake <input type="checkbox"/> Well <input type="checkbox"/> Borehole <input type="checkbox"/> Others <input type="checkbox"/> Distance ( <i>meters</i> ) from the outside perimeter of the plot.
3.8. The average yields of the specified crops (kg)	Peaches <input type="checkbox"/> Persimmons <input type="checkbox"/> Apples <input type="checkbox"/> Kiwi <input type="checkbox"/> Vegetables ( <i>specify the variety</i> ) Bay leaves <input type="checkbox"/> Honey <input type="checkbox"/>

#### 4. The Feasibility of Co-financing Application/BPs

4.1. Prurchase and/or installation of the irrigation system	yes <input type="checkbox"/> no <input type="checkbox"/>
4.1.1 If yes, please specify	The type of an irrigation system Technical specifications Supplier Total cost of an irrigation scheme Total costs of installation and additional services
4.2. Greenhouse	yes <input type="checkbox"/> no <input type="checkbox"/>
4.2.1 If yes, please specify	The type of a greenhouse Technical specifications Supplier Total cost of a greenhouse Total costs of installation and additional services

4.3. Purchase of agricultural machinery and/or equipment.	Rototiller <input type="checkbox"/> Sower <input type="checkbox"/> Uprooter soil driller <input type="checkbox"/> Planter <input type="checkbox"/> Tractor <input type="checkbox"/> Others ( <i>Please specify</i> )
4.3.1 If yes, please specify	Product Technical Specifications Supplier Price Total costs of installation and additional services
4.4. Saplings	yes <input type="checkbox"/> no <input type="checkbox"/>
4.4.1 If yes, please specify	Variety Characteristics Supplier Price Total costs of additional services
4.5. Certification	yes <input type="checkbox"/> no <input type="checkbox"/>
4.5.1 If yes, please specify	Certifying agency Goal of certification Period required for certification Costs
4.6 Honey	yes <input type="checkbox"/> no <input type="checkbox"/>
4.6.1 If yes, please specify	Product Characteristics Supplier Price Total costs of additional services

### 5. Financial Data of the Application and Supplier

Supplier	Unit	Unit cost (GEL)	Quantity/Number	Total cost
<b>Total</b>				

### 6. Sources of Financing

	Source	Amount (GEL)	% (to be estimated by APMA)
7.1.	Total costs		



7.2.	own funds		
7.2.1.	Loans from a bank or a micro-financing institution		
7.2.3.	Grant from other programs (if yes, please specify)		
7.3.	The amount of co-financing required by APMA		

**Note: APMA may request some additional documents and information from the Beneficiaries.**

Annex 2

## Questionnaire Application Form

Application Submission Date	
Application Registration No	
Comment by APMA co-financing officer	

### 1. General Information

1.1. Name	
1.2. Sex	female male
1.3. Age	<30 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> > 30 <input type="checkbox"/> <input type="checkbox"/>
1.4. ID No	
1.5. Contact Tel	
1.6. Additional Tel	
1.7. Residential Address	
1.8. E-mail or zip code	
1.9. Applicant's Status	Legal person Natural person

### 2. BP

The preferred format of an efficient BP should be as follows:

#### 2.1 Project Name

#### 2.2 Review and Justification

#### 2.3 Detailed description of a legal person, including an agricultural cooperative

Management/administration

The assets and facilities required for production (*buildings, equipment, etc*)

- raw materials (*source, price*)
- product (*description, quantities*)
- market price

#### 2.4 Challenges and opportunities

### Key advantages and disadvantages

- Availability of raw materials
- Transport
- Existing means of production
- Main facilities
- Certification (e.g. ISO, HACCP, EU Food Standards, BRC, Organic, Fair Trade...)
- Competitive advantage
- Others

### Additional value created by the BP in terms of

- increased productivity
- increased profit
- provision of employment
- innovation
- impact on suppliers (*e.g. smallholder farmers*)
- others

### Market analysis:

- annual turnover of the local market in GEL;
- brief analysis of local and export demands;
- target market segment and its description;
- key competitors;
- planned sales;
- sales geography
- are sales seasonal? If yes, describe;
- description of sales process.

## 2.5 Implementation Plan

- technical implementation
- sales plan

*Note: APMA may request other additional documents and information from beneficiaries.*

## Attachment 2: Technical and BDS Service Providers in the Dairy Sector in Georgia

Organization	Potential Roles Responsibilities	Capacity
<b>Organizations - Central Level</b>		
1. APMA - Agricultural Projects' Management Agency		<ul style="list-style-type: none"> <li>• A legal entity of public law subjected to state control of the Ministry of Environment Protection and Agriculture of Georgia</li> <li>• Management and implementation of agricultural projects of the Ministry of Environmental and Agricultural Development of Georgia in all regions</li> <li>• Management and implementation of agricultural projects financed by various Donor organizations</li> <li>• Supervision of some agricultural enterprises</li> </ul>
2. ACDA - Agricultural Cooperatives Development Agency		<ul style="list-style-type: none"> <li>• A legal entity of public law subjected to state control of the Ministry of Environment Protection and Agriculture of Georgia</li> <li>• Provision of consultations to agricultural cooperatives in legal, institutional, production technology and other issues</li> <li>• Creation of the database on activities of agricultural cooperatives operating in Georgia (performed, current and/or planned activities, type, volume, received and sold harvest and provided services of agricultural cooperatives)</li> <li>• 28 staff experienced in issues of agricultural cooperatives</li> <li>• Awarding, termination and cancellation of status of agricultural cooperative</li> <li>• Supporting training and re-training of staff for agricultural cooperatives</li> <li>• Organization of scientific and practical conferences, exhibitions, workshops, meetings with the aim of sharing experience and information in the sphere of agricultural cooperation</li> <li>• Conducting monitoring of agricultural cooperatives</li> </ul>
3. NFA – National Food Agency		<ul style="list-style-type: none"> <li>• A legal entity of public law subjected to state control of the Ministry of Environment Protection and Agriculture of Georgia</li> <li>• Provision of veterinary and phytosanitaric control and monitoring of food safety issues</li> <li>• Provision of inspection, monitoring, supervision, checking documentation and laboratory testing</li> <li>• Livestock vaccination – State program</li> <li>• Prevention, prophylaxis, localization and liquidation of animal diseases</li> <li>• Phytosanitaric diagnoses of agricultural land plots</li> <li>• Offices are <u>represented in all regions of Georgia including target areas of the programme.</u></li> </ul>
4. LLC Meqanizatori		<ul style="list-style-type: none"> <li>• Provision of agricultural equipment / machinery</li> <li>• Provision of consultations for farmers</li> <li>• Introduction of new technologies in agricultural production</li> <li>• Procession of soil prior sowing and after</li> <li>• Head office in Tbilisi and service centers in all regions of Georgia including target areas of the programme.</li> </ul>
5. Georgian Farmers' Association		<ul style="list-style-type: none"> <li>• NGO with six-year history which unites about 2000 farmers</li> <li>• Intermediary and a mediator organization between government and farmers</li> <li>• Giving guidance to the farmers on governmental programs</li> <li>• Provision of the links to service providers and sources of funding</li> <li>• Consultation on policy issues and representation of members' interests</li> <li>• Defense of smallholder farmers' rights</li> <li>• Participation in policy making</li> <li>• Advocacy of fair access to markets and resources</li> <li>• GFA call center provides farmers and stakeholders with useful information and helps to analyze current issues in agriculture</li> </ul>
6. HEKS-EPER Georgia		<ul style="list-style-type: none"> <li>• Contributing to improved living conditions of the population in Armenia and Georgia</li> <li>• Aiming at poor rural households and providing them with a perspective towards dignified life and peaceful coexistence</li> <li>• Supporting target communities to improve livelihoods and to be able to address livelihood challenges and environmental risks despite shocks and stresses</li> <li>• Striving that organized youth, key people, opinion leaders, media actors and CSOs in the South Caucasus challenge stereotypes, provide alternative information and offer a common peace vision to the wider society</li> <li>• Increasing the preparedness of partner organizations and HEKS/EPER to adequately respond to man-made and natural disasters</li> </ul>
7. MERCY CORPS Georgia		<ul style="list-style-type: none"> <li>• International Not for profit organization</li> <li>• Rural Service Center provides communities and local farmers with important agricultural and economic information and training</li> <li>• Provision of technical know-how to scale up agricultural production in rural and often isolated communities</li> <li>• Regional office in Akhaltsikhe (Samtskhe Javakheti) with two experienced staff</li> </ul>

Organization	Potential Roles Responsibilities	Capacity
8. MOFER - association "Farmer of the Future"		<ul style="list-style-type: none"> <li>Establishing innovative technologies in agriculture</li> <li>Providing assistance to farmers in manufacturing of products according to modern standards and their sale</li> <li>Providing marketing consultancy to its own members</li> <li>Carrying out educational-cognitive activities in the field of veterinary, sheep breeding, vine-growing and gardening for the purpose of promotion of acquiring of professional skills and rising of qualification</li> <li>Consultation service center provides farmers with competent advice (cattle-breeding, bee-breeding, selection, fish-breeding, vine-growing and gardening etc). Hot-line with vet is functioning</li> <li>418 trainings provided for 9520 persons (farmers, vets, vet-nurses, animal technician, animal (poultry) food manufacturers, plant breeders etc. to rise their manufacturing and professional skills, establish new technologies and bring Georgian products into proximity with European standards</li> <li>Provision of agro-broker service for the farmers</li> </ul>
9. The Biological Farming Association Elkana		<ul style="list-style-type: none"> <li>Consultations on the organic farming issues</li> <li>Promotion of processing and marketing of organic products and of making it a profitable business</li> <li>Promotion of raising competitive capacity of organic products;</li> <li>Promotion of rural tourism and production of local traditional products</li> <li>Promoting organic farmers' associations and cooperation</li> <li>Raising public awareness on the importance of organic farming, traditional varieties and organic products</li> <li>Protection of organic farmers' rights</li> <li>Development of a plan of conversion to biological methods of farm management</li> <li>Economic planning and optimization of farms</li> <li>Consultancy and extension services in the sphere of organic farming</li> <li>Consultations on business planning and marketing issues</li> <li>Supplying seed and planting stock of traditional local varieties to farmers</li> <li>Arranging training and workshops on the issues of organic agroproduction, extension services, business planning, community mobilization, rural tourism and biological safety</li> </ul>
10. GDCl Ltd		<ul style="list-style-type: none"> <li>Providing long-term consulting services in the introduction and further implementation of wide spectrum of management systems: Quality Management System in line with international standard ISO 9001:2015 (generic – for any company and sector); Food Safety Management System according to international standard ISO 22000:2005, FSSC 22000:2010, IFS, BRC (applicable to the food chain);</li> <li>Integrated Management System in accordance with ISO 22000:2005/FSSC 22000:2010 and ISO 9001:2015 (applicable to the food chain); Good Agricultural Practices in line with GLOBALGAP requirements (fresh fruits and vegetables)</li> <li>Providing short-term consulting services aimed at company evaluation against Good Manufacturing Practice (GMP) requirements (food industry)</li> <li>Auditing company processes against the specific international standard (generic - any company and sector)</li> </ul>
11. Agro Solutions LLC		<ul style="list-style-type: none"> <li>Providing assistance in development of BPs</li> <li>Preparing agro-technological maps</li> <li>Supporting organic farms</li> <li>Assessment of land and conclusion of sustainability</li> <li>Supervising in building specific enterprises in compliance with full rules</li> <li>Providing professional advice and service of the field specialist</li> <li>Assisting farmers to benefit from governmental projects</li> <li>Assisting farmers to benefit from governmental projects</li> <li>Helping farmers to get financing from various financial institutions</li> <li>Creating detailed manual of technological process of the enterprise</li> </ul>
12. Agro Solutions LLC		<ul style="list-style-type: none"> <li>Analyzing major economic indicators of agricultural sector in Georgia</li> <li>Providing monthly analytical publications □ The Agri Review□</li> <li>Agricultural policy research center</li> </ul>
13. ISET Policy Institute		<ul style="list-style-type: none"> <li>Analyzing major economic indicators of agricultural sector in Georgia</li> <li>Providing monthly analytical publications □ The Agri Review□</li> <li>Agricultural policy research center</li> </ul>
14. RDC - Regional Development Center		<ul style="list-style-type: none"> <li>Providing trainings in self-governance issues</li> <li>Supporting active cooperation of youth with local self-government</li> <li>Supporting ethnic minorities</li> </ul>

Organization	Potential Roles Responsibilities	Capacity
15. INVET Ltd.	<ul style="list-style-type: none"> <li>• Providing veterinary products and consulting services</li> <li>• The head office, 3 warehouses, 6 branches and distributions in all regions of Georgia</li> <li>• Provided production includes: antibacterial, anti-inflammatory, vaccines, vitamins, minerals, disinfectants, balanced meals of animal and bird, food additives, zoo products</li> <li>• High-tech plant built in Mtskheta producing high quality balanced food for birds and animals, where production is in line with the requirements of the HACCP system</li> </ul>	
16. ROQI.Ltd	<ul style="list-style-type: none"> <li>• Providing supplies to up to 300 veterinary drugstores and farmer service centers throughout Georgia</li> <li>• Two warehouses – The East Georgia is supplied from Lilo warehouse and the west Georgia from Kutaisi warehouse</li> <li>• Call Center service</li> <li>• Retail sales office provides services to farmers every day. Consultations are free of charge (325 700 consultations since the date of establishment)</li> </ul>	
17. Georgian Dairy	<ul style="list-style-type: none"> <li>• Gathering and spreading information on modern technologies in dairy production</li> <li>• Providing information on dairy market in Georgia</li> <li>• Supporting exchange of knowledge among milk producers and producers of dairy products</li> </ul>	
18. Business Professionals Network (BPN) Georgia	<ul style="list-style-type: none"> <li>• Supporting building of market-relevant, small and medium-sized companies</li> <li>• Applying the following approaches: one-to-one coaching, business management training, fair lending and professional networking through a business owners' association</li> </ul>	
19. Business Consulting Organisations of Georgia (ABCO)	<ul style="list-style-type: none"> <li>• Supporting proper development of the local enterprises and agricultural organizations, by increasing the knowledge and experience of local SME managers and farmers</li> <li>• Facilitating the availability and accessibility of high quality and wide scope of business consulting services for start-up and existing businesses</li> <li>• ABCO unites about 200 professional advisors from various fields of industry and agriculture</li> <li>• National Intellectual Property Centre, which oversees the registering and utilization of appellations of origin and geographical indications</li> </ul>	
<b>Organizations – Regional and Municipal Levels</b>		
<b>Samegrelo</b>		
21. RIC – Regional Information Center	<ul style="list-style-type: none"> <li>• Three small rooms in an old building just opposite the Gamgeoba building in Zugdidi. The Municipal offices - two rooms in the buildings of local government in each municipality of Samegrelo</li> <li>• Six employees with higher education in agriculture and 3-5 employees in each municipality of the region (34 employees in total)</li> <li>• Regional office is equipped with computers and tablets</li> <li>• Supporting state governmental programs on local level (programs implemented by APMA and ACDA)</li> <li>• Creating local databases in agricultural field (operative information) with agreed methodology (it is not official statistics)</li> <li>• Spreading information and providing consultations to farmers</li> <li>• Organizing all field visits and meetings with local farmers and agricultural enterprises</li> <li>• Extension services make only 30% of their work</li> </ul>	
22. Cooperative Shurobumo	<ul style="list-style-type: none"> <li>• The cooperative Shurobumo is situated in village Akhalsopeli in Senaki municipality</li> <li>• It consists of 11 members and has 156 cows in its ownership</li> <li>• Collecting raw milk</li> <li>• Making cheese</li> </ul>	
23. Cooperative New Product	<ul style="list-style-type: none"> <li>• The cooperative New product is situated in village Likhaindrao in Martvili municipality</li> <li>• It consists of 62 members and has 471 cows in its ownership</li> <li>• Collecting raw milk</li> <li>• Making cheese</li> </ul>	
24. LTD Vet Service	<ul style="list-style-type: none"> <li>• LTD Vet Service is situated in village Ingiri in Zugdidi municipality</li> <li>• Providing vet services</li> <li>• Selling vet pharmacy products</li> </ul>	
25. LTD AgroHouse	<ul style="list-style-type: none"> <li>• LTD AgroHouse is situated in Zugdidi</li> <li>• Providing vet services</li> <li>• Selling vet pharmacy products</li> <li>• Providing trainings for farmers – Good Training Facility</li> <li>• Making soil tests – Good Lab Facilities</li> <li>• Services for Artificial Insemination</li> </ul>	
26. LTD Kodu Group	<ul style="list-style-type: none"> <li>• LTD Kodu Group is situated in village Darcheli in Zugdidi municipality</li> <li>• Producing food base for animals</li> </ul>	

Organization	Potential Roles Responsibilities	Capacity
		<ul style="list-style-type: none"> <li>• Providing consultations on animal feeding for farmers</li> </ul>
27. Artificial Insemination Service in Khobi		<ul style="list-style-type: none"> <li>• Artificial Insemination service</li> <li>• Consultations on Artificial Insemination</li> </ul>
28. Artificial Insemination Service in Chkhorotsku		<ul style="list-style-type: none"> <li>• Artificial Insemination service</li> <li>• Consultations on Artificial Insemination</li> </ul>
29. Sante Milk Collection Center in Abasha		<ul style="list-style-type: none"> <li>• Collecting milk from local farmers</li> <li>• Providing consultations on animal care and milk collection for local farmers</li> </ul>
30. RIC – Regional Information Center		<ul style="list-style-type: none"> <li>• Two rooms in Akhaltsikhe Gamgeoba building. The Municipal offices - two rooms in the buildings of local government in each municipality of Samtkhe-Javakheti</li> <li>• Six employees with higher education in agriculture and 3-5 employees in each municipality of the region (25 employees in total)</li> <li>• Regional office is equipped with computers and tablets</li> <li>• Supporting state governmental programs on local level (programs implemented by APMA and ACDA)</li> <li>• Creating local databases in agricultural field (operative information) with agreed methodology (it is not official statistics)</li> <li>• Spreading information and providing consultations to farmers</li> <li>• Organizing all field visits and meetings with local farmers and agricultural enterprises</li> <li>• Extension services make only 30% of their work</li> </ul>
31. Cooperative Endet Ertobis Nobats		<ul style="list-style-type: none"> <li>• The cooperative Endet Ertobis Nobats is situated in village Benara in Adigeni municipality</li> <li>• It consists of 3 members and has 165 cows in its ownership</li> <li>• Collecting raw milk</li> <li>• Making cheese</li> </ul>
32. Cooperative Iveria		<ul style="list-style-type: none"> <li>• The cooperative Iveria is situated in village Iveria in Aspindza municipality</li> <li>• It consists of 27 members and has 214 cows in its ownership</li> <li>• Collecting raw milk</li> <li>• Making cheese</li> </ul>
33. Cooperative Mtis Gemo		<ul style="list-style-type: none"> <li>• The cooperative Mtis Gemo is situated in village Gomaro in Adigeni municipality</li> <li>• It consists of 49 members and has 356 cows in its ownership</li> <li>• Collecting raw milk</li> <li>• Making cheese</li> </ul>
34. Cooperative Stela		<ul style="list-style-type: none"> <li>• The cooperative Stela is situated in village Vachyani in Akhalkalaki municipality</li> <li>• It consists of 29 members and has 154 cows in its ownership</li> <li>• Collecting raw milk</li> <li>• Making cheese</li> </ul>
35. Cooperative Khiza		<ul style="list-style-type: none"> <li>• The cooperative Khiza is situated in village Khizabavra in Aspindza municipality</li> <li>• It consists of 3 members and has 313 cows in its ownership</li> <li>• Collecting raw milk</li> <li>• Making cheese</li> </ul>
36. Cooperative Dertselis Nobati		<ul style="list-style-type: none"> <li>• The cooperative Dertselis Nobati is situated in village Patara Zanavi in Adigeni municipality</li> <li>• It consists of 16 members and has 171 cows in its ownership</li> <li>• Collecting raw milk</li> <li>• Making cheese</li> </ul>
37. Cooperative Triala		<ul style="list-style-type: none"> <li>• The cooperative Triala is situated in village Lelovani in Adigeni municipality</li> <li>• It consists of 19 members and has 153 cows in its ownership</li> <li>• Collecting raw milk</li> <li>• Making cheese</li> </ul>
38. Cooperative Imedi		<ul style="list-style-type: none"> <li>• The cooperative Imedi is situated in village Mokhe in Adigeni municipality</li> <li>• It consists of 17 members and has 171 cows in its ownership</li> <li>• Collecting raw milk</li> <li>• Making cheese</li> </ul>
39. Ltd Tshipora - Dairy Processor		<ul style="list-style-type: none"> <li>• Collection of milk from 500 farmers out of which 400 are SSLPs in several villages of Akhatsikhe and Adigeni municipality</li> <li>• Maximum daily processing capacity of the enterprise is 7 tons a day.</li> <li>• The enterprise gained HACCP compliance in the Spring of 2016</li> <li>• Checking milk quality of collected product</li> <li>• Making cheese (Georgian factory cheese, Imeruli and Sulguni) and other dairy products which are sold</li> </ul>

Organization	Potential Roles Responsibilities	Capacity
40. Simion Darbinyan - Dairy Processor		<p>through the Ori Nabiji, Goodwill and Smart supermarket chains, though the Ltd Papuna, Extra Meat and Agro business Group distribution companies and through direct sales to Batumi Redison Hotel, restaurants in Akhaltsikhe town and to the Jino Hotel in Rabati. The owner is motivated to export its products to Greece and to the US</p> <ul style="list-style-type: none"> <li>Collection of milk from 600 farmers out of which 595 are SSLPs in several villages of Ninotsminda municipality</li> <li>Maximum daily processing capacity of the enterprise is 8 tons a day.</li> <li>Making cheese (Georgian cheese, Sulguni, Chechili, Imeruli) and other dairy products which are sold through the cheese intermediaries in Tbilisi</li> <li>Simion Darbinyan is going to change the legal status of the enterprise to Alpuri Javakheti Ltd shortly, then to apply for to gain the status of tax exemptions and to proceed the HACCP introduction</li> </ul>
41. Misak Muradyan - Dairy Processor		<ul style="list-style-type: none"> <li>collection of milk from 40 small scale farmers in the Sulda, Miasnikyan, Chamdzvrala and Vachiani villages of Akhalkalaki municipality</li> <li>Maximum daily processing capacity of the enterprise is 2 tons a day.</li> <li>Making cheese (Sulguni) and other dairy products which are sold in the agricultural markets of Batumi, Zugdidi and Tbilisi</li> <li>In May 2017 Misak took a cheap loan Gel 30,000 with 5% interest which he used to purchase the technological equipment</li> </ul>
42. Hakob Hambaryan - Dairy Processor		<ul style="list-style-type: none"> <li>Collection of milk from 100 farmers out of which 80 are SSLPs in several villages of Ninotsminda municipality</li> <li>Maximum daily processing capacity of the enterprise is 7 tons a day.</li> <li>Making cheese (Georgian factory cheese, Sulguni, Chechili, Lori) and other dairy products which are sold in Tbilisi, Batumi, Poti, Kutaisi, Gori and Borjomi markets</li> <li>Hakob plans to gain HACCP compliance as this constrains the company to export cheese to other countries except for Russia</li> </ul>
43. LLC "Akhali Meskheti" - Dairy Processor		<ul style="list-style-type: none"> <li>Collection of milk from 150 farmers out of which 140 are SSLPs in several villages of Aspindza municipality</li> <li>Maximum daily processing capacity of the enterprise is 12 tons a day</li> <li>Making cheese (Georgian Factory cheese, Imeruli, Sulguni, tenili, Chechili) and other dairy products which are sold through its 2 cheese shops in Tbilisi in addition to the big supermarket chains like Careful, Smart and Universal besides it supplies 1 hotel and 3 restaurants locally</li> <li>Checking milk quality of collected product</li> <li>In May, 2017 the factory gained HACCP compliance</li> </ul>
44. I.E Rafael Karoyan - Dairy Processor		<ul style="list-style-type: none"> <li>Collection of milk (both cows and sheep) from 70 farmers out of which 60 are SSLPs in several villages of Akhalkalaki municipality</li> <li>Maximum daily processing capacity of the enterprise is 3 tons a day</li> <li>Making cheese (Georgian Factory cheese) which are sold through the cheese intermediaries in Tbilisi and Gori</li> <li>He plans to produce European cheese. Cheese is labeled under the company name, however, it doesn't have its logo</li> </ul>
45. I.E Tsolak Grigoryan - Dairy Processor		<ul style="list-style-type: none"> <li>Collection of milk from 130 farmers in several villages of Ninotsminda municipality</li> <li>Maximum daily processing capacity of the enterprise is 3 tons a day</li> <li>Making cheese (Georgian Factory cheese, Sulguni, small amounts of Chechili cheese) and other dairy products which are sold through the cheese intermediaries in Tbilisi and Gori. Tsolak sells part of his cheese to Tsezari Kakhadze who pays 2 GEL more than the market price per kg and exports it to US then</li> <li>In August 2017 Tsolak took a cheap loan Gel 160,000 with 3% interest which he invested in upgrading the factory building and introducing HACCP</li> </ul>
46. Cooperative Mziuri Javakheti		<ul style="list-style-type: none"> <li>Collection of milk (both cows and sheep) from 90 farmers out of which 75 are SSLPs in several villages of Akhalkalaki municipality</li> <li>Maximum daily processing capacity of the enterprise is 8 tons a day</li> <li>Making cheese (Georgian Factory cheese, Lori, Chechili, Sulguni, Smoked chees) and other dairy products which are sold in the agricultural markets and small supermarkets in Tbilisi and Batumi, Gori, Khashuri, Ninotsminda and Akhalkalaki mainly through the intermediaries (Darejan Tetrushvili as an example)</li> <li>Checking milk quality of collected product</li> <li>In March, 2017 the cooperative took Gel 20,000 loan for 15% interest rate to renovate the factory and later it introduced HACCP with ALCP facilitation</li> </ul>
47. IE "Karen Simonyan" - Dairy Processor		<ul style="list-style-type: none"> <li>Collection of milk from 143 farmers out of which 140 are SSLPs in several villages of Akhalkalaki municipality</li> <li>Maximum daily processing capacity of the enterprise is 2.5 tons a day</li> <li>Making cheese (Georgian Factory cheese) and 60% of which are sold to the cheese intermediaries who take it to the agri markets in Tbilisi and the rest 40% of cheese in Akhalkalaki to the 7 Restaurants and several shops</li> </ul>

Organization	Potential Roles Responsibilities	Capacity
48. Meskheti Products Ltd - an abattoir and a meat products manufacturer		<ul style="list-style-type: none"> <li>• Checking milk quality of collected product</li> <li>• By the end of 2017 the enterprise started HACCP introduction with ALCP facilitation</li> <li>• Slaughtering of the livestock, sheep and pigs is the main activity of the company along with the production of meat products with small quantities (Aspindza Town)</li> <li>• The company has been given the HACCP certification in the beginning of 2017 although since then it continued functioning as an abattoir only. The main reason behind this switch seems to be that the Meskheti products couldn't compete with other meat products manufacturers which use the frozen meat</li> <li>• Currently slaughtering 15 cattle, 5 calves and 40 pigs a day</li> <li>• The slaughterhouse has its well established livestock collection points 33 totally throughout the region which pre-purchase livestock from farmers on a commission basis</li> <li>• It supplies meat and pork mainly to supermarket chains like 5 branches of Smart in Tbilisi, 1 in Tskhneti and 1 in Gori and branches of Taglaura Restaurant in Tbilisi</li> </ul>
49. Kusha 2011 LLC - Mini Slaughterhouse		<ul style="list-style-type: none"> <li>• It has been given HACCP Certification in 2016 (Akhalsikhe Town)</li> <li>• slaughtering 3 cattle/a day and supplies meat to the meat shops located in Ahalsikhe Town</li> <li>• Kusha 2011 won the tender in 2016 and since then it supplies meat to the kindergartens of the region</li> <li>• The company plans meat products manufacturing and trade shortly and currently it is in the process of expanding the size of the enterprise and setting up the technological line</li> </ul>
50. I.E Manana Tsikarishvili - wool enterprise		<ul style="list-style-type: none"> <li>• has strong linkages with small and medium scale sheep producers of the region who supply greasy unwashed wool to it (Akhalsikhe municipality)</li> <li>• ALCP facilitated the enterprise to increase production capacity by the introduction of the advanced processing equipment: washing machine, dewater and dryer</li> </ul>
51. Ltd Rural Advisory Service		<ul style="list-style-type: none"> <li>• Ltd Rural Advisory Service have offices and agricultural shops "A Farmer" in Akhalsikhe, Adigeni, Aspindza and Akhalkalaki (<a href="http://www.ras.ge/">http://www.ras.ge/</a>)</li> <li>• Supplying farmers with high-quality seed materials, fertilizers, plant protection means, veterinarian medicines, agricultural equipment and machinery, beekeeping tools, irrigation systems</li> <li>• Consulting farmers on running agricultural activities through modern technologies</li> <li>• Helping farmers to develop BPs</li> <li>• The company has demo plots</li> <li>• Good Training Facilities</li> </ul>
52. Vet Pharmacies in the region		<ul style="list-style-type: none"> <li>• There are 18 vet pharmacies in the region which are all supplied by ROQI.Ltd (#16 in this list)</li> <li>• Vet Pharmacies in Akhalsikhe municipality, 6 – in Akhalkalaki municipality, 4 – in Nonotsminda municipality, 2 – in Adigeny municipality and one in Aspindza municipality</li> </ul>
53. Ltd Dami - Input Machinery Supplier		<ul style="list-style-type: none"> <li>• Input Machinery Supplier in Akhalsikhe</li> <li>• Providing services for agricultural machinery</li> </ul>
54. IE Davit Lomidze Input Machinery Supplier		<ul style="list-style-type: none"> <li>• Input Machinery Supplier in Akhalsikhe</li> <li>• Providing services for agricultural machinery</li> </ul>
55. Ltd „G-Geo-Tech,, - Input Machinery Supplier Imereti		<ul style="list-style-type: none"> <li>• Input Machinery Supplier in Akhalkalaki and Ninotsminda (office is in Tbilisi)</li> </ul>
56. RIC – Regional Information Center		<ul style="list-style-type: none"> <li>• Two rooms in Zestaponi Gamgeoba building. The Municipal offices - two rooms in the buildings of local government in each municipality of Imereti</li> <li>• Six employees with higher education in agriculture and 3-5 employees in each municipality of the region (47 employees in total)</li> <li>• Regional office is equipped with computers and tablets</li> <li>• Supporting state governmental programs on local level (programs implemented by APMA and ACDA)</li> <li>• Creating local databases in agricultural field (operative information) with agreed methodology (it is not official statistics)</li> <li>• Spreading information and providing consultations to farmers</li> <li>• Organizing all field visits and meetings with local farmers and agricultural enterprises</li> <li>• Extension services make only 30% of their work</li> </ul>
57. Cooperative Zestaponuri		<ul style="list-style-type: none"> <li>• Collection of milk from 20 farmers in Rodinauli villages of Zestaponi municipality</li> <li>• Maximum daily processing capacity of the enterprise is 3 tons a day</li> <li>• Making cheese (Sulguni and Imeruli) which are sold in the supermarkets in Imereti and kindergartens in Zestaponi, Kharagaui and Ambrolauri municipalities</li> <li>• Checking milk quality of collected product</li> </ul>



Organization	Potential Roles Responsibilities	Capacity
		<ul style="list-style-type: none"> <li>The enterprise has HACCP compliance</li> </ul>
58. Cooperative Lelo 2014		<ul style="list-style-type: none"> <li>Collection of milk from 10 farmers in Gocha Jikhaishi villages of Khoni municipality</li> <li>Maximum daily processing capacity of the enterprise is 2 tons a day</li> <li>Making cheese (Sulguni and Imeruli) and other dairy products which are sold in the markets and supermarkets in Imereti and Batumi</li> </ul>
59. Milk Factory - Dairy Processor		<ul style="list-style-type: none"> <li>Collection of milk from 20 farmers in several villages of Sachkhere municipality</li> <li>Maximum daily processing capacity of the enterprise is 1 ton a day</li> <li>Making cheese (Factory cheese, Sulguni, Imeruli) and other dairy products which are sold in the local market and 21 kindergartens in Sachkhere municipality</li> <li>Checking milk quality of collected product</li> <li>The enterprise has HACCP compliance</li> </ul>
60. Tanadgoma - Dairy Processor		<ul style="list-style-type: none"> <li>Collection of milk from 7 farmers in several villages of Tskaltubo municipality</li> <li>Maximum daily processing capacity of the enterprise is 1 ton a day</li> <li>Making cheese (Sulguni and Imeruli)</li> </ul>
61. LTD „Tractorservisi,, - Input Machinery Supplier		<ul style="list-style-type: none"> <li>Input Machinery Supplier in Kutaisi (has a store in Akhaltsikhe too)</li> <li>Providing services for agricultural machinery</li> </ul>
62. Vet Pharmacies in the region		<ul style="list-style-type: none"> <li>There are about 190 vet pharmacies in all municipalities of the region</li> </ul>
63. The Georgian Rural Development Program of the Georgian Institute of Public Affairs (GRDP of GIPA)		<ul style="list-style-type: none"> <li>Regional office in Kutaisi</li> <li>Capacity Building of Georgian National Statistics Office and the Ministerial Level Steering Group of the National Animal Health Program which works at the policy level with the Ministry of Environmental Protection and Agriculture to support advisory function, facilitate information sharing and to channel donor investment into sustainable projects</li> <li>Extension Training Sessions as a pilot model for extension centers based on the US Land Grant Universities model</li> <li>Veterinarians' Regional Associations (VRAs) which bring together more than 100 rural veterinarians to support and promote their work in expanding veterinary coverage throughout Georgia</li> </ul>
64. Center for training and consultancy		<ul style="list-style-type: none"> <li>Trainings on programme Cycle management, communication, Proposal writing, Local Government capacity building, Regional strategy development, Finance management</li> <li>www.ctc.org.ge</li> </ul>

### Attachment 3: Indicative Programme Start-up Activities

The early implementation activities for DiMMA with milestones are summarised in the table below.

Action	Expected Completion Date	Responsibility	Remarks
Negotiate financing agreement		IFAD/GoG	
Approval by the EB		IFAD	
Sign the financing agreement		MoF (GoG)/IFAD	
Start conducting baseline surveys to fill existing data gaps, including for the Level 3 RIMS indicators, so that the log frame indicators can be more meaningfully quantified and adequately adjusted		PMU/IFAD/Consultant	
Prepare Draft PIM and Procurement Manual		PMU/IFAD	
Review and fine-tune terms of reference for programme staff positions, Service Providers		PMU/IFAD	
Re-organise composition of the PSC and establish Regional Coordination Committee		PMU	
Ratify the Programme		GoG	
Pre-qualify service providers		PMU/IFAD	
Recruit additional key PMU staff		PMU/IFAD	
Finalise Baseline Survey and refinement of Logframe indicators		PMU/Service Providers	
Finalise the PIM		PMU/IFAD/Consultant	
Review the 18-month procurement plan		IFAD/GoG	
Conduct start-up workshop and orientation of PSC, PMU, Regional Coordination committee, key implementation partners (Government/NGO/Private sector)		PMU/IFAD	
Preparation of 1 <sup>st</sup> implementation year AWPB; and		PMU	
Prepare and agree on 2 year implementation support schedule			
Sign contracts with key Service Providers, prepare and negotiate Contracts with SPs and MOUs with Departments		PMU/IFAD	
Conduct rapid awareness creation etc. on programme objectives and implementation arrangements for key stakeholders at municipality level for Government and Private sector, (Milk collection centres, etc.		PMU, Service Providers	
Conduct awareness creation and conduct rapid needs assessments and prepare dairy cluster development plans		PMU, Service Providers	
Update the capacity building plan based on needs assessment which will inform successive AWPBs		PMU, Service Providers	

### Attachment 4: Indicative Capacity Building Plan

Activity	Quantities									Costs (US\$)	Responsibility
	2019	2020	2021	2022	2023	2024	2025	2026	Total		
				-	-	-	-	-			MEPA/PMU/SPs
Business management training for farmers				-	-	-	-	-			MEPA/PMU/SPs
Marketing training	-				-	-	-	-			MEPA/PMU/SPs
Technical training of farmers	-				-	-	-	-			MEPA/PMU/SPs
Technical and business management training for farm level service providers and aggregators	-	-				-	-	-			MEPA/PMU/SPs
	-	-				-	-	-			MEPA/PMU/SPs
				-	-	-	-	-			MEPA/PMU/SPs
	-			-	-	-	-	-			MEPA/PMU/SPs
Study tours for farmers	-	-					-	-			MEPA/PMU/SPs
				-	-	-	-	-			MEPA/PMU/SPs
Pasture user associations				-	-	-	-	-			MEPA/PMU/SPs
Training course in fodder production											
											Private suppliers
Training on climate change adaptation					-	-	-	-			Int./National TA
Governance of cooperatives	-				-	-	-	-			Int./National TA
				-	-	-	-	-			Int./National TA
<b>Subtotal</b>											
			-	-	-	-	-	-			PMU/SPs
	-	-						-			PMU/SPs
DiMMA service providers in KM and KM stakeholders training											
<b>Subtotal</b>											

Activities	Quantities									Total Costs	Responsibility	
	2016	2017	2018	2019	2020	2021	2022	2023	Total			
Training of Field Facilitators												
												PMU/SPs
												PMU/SPs
												PMU/SPs
<b>Subtotal</b>												
Policy analysis and formulation												
												PMU/SPs
												PMU/SPs
												PMU/SPs
<b>Subtotal</b>												
<b>Total</b>												

Programme management	Quantities									Total	Responsibility	
	2016	2017	2018	2019	2020	2021	2022	2023	Total			
												Int./National TA/SPs
												Int./National TA/SPs

## **Attachment 5: Legal options for farmer organisations in Georgia**

Ministry of Justice Order No. 241 of the Minister December 31, 2009

On Approval of the Instruction "Registration of Entrepreneurial and Non-Entrepreneurial (Non-Commercial) Legal Entities"

Article 5. Registry of Entrepreneurial and Non-Entrepreneurial (Non-Commercial) Legal Entities

1. Registers of Entrepreneurial and Non-Entrepreneurial (Non-Commercial) Legal Entities shall be registered as:

- A) Individual entrepreneur;
- B) Limited Liability Society;
- C) Solidarity society;
- D) Commandant Society;
- E) Joint stock company;
- F) Cooperative;
- G) Non-entrepreneurial (non-commercial) legal entity envisaged by the Civil Code of Georgia;
- H) branch of foreign enterprise and non-profit (non-commercial) legal entity (representation, permanent establishment).

### Attachment 6: State Programme on Support of Dairy Production Agricultural Cooperatives

The programme, implemented by ACDA, is composed of the following components:

- Capital Investment
- Technical Assistance

#### Capital Investment

The cooperatives registered in the mountainous settlements, where the shareholders are only agricultural cooperatives, in case when the number of cows owned by the agricultural cooperative and/or by its shareholder agricultural cooperative and/or by the shareholders of these agricultural cooperatives exceeds 50 in total.

In case of a request, the cooperatives will receive dairy production equipment defined by the Annex 1 or Annex 2.

Annex N1

	Equipment Details	Quantity
1	Cooling reservoir (500 liter)	1
2	Milk Pump	1
3	Generator (5 kw)	1
4	Water reservoir (1.5 tone)	1
5	Washing Machine with hot water	1
6	Boiler (200 liter)	1
7	Funnel (stainless steel)	1
8	Electric scales	1
9	Lacto scan	1

#### Artificial Insemination Equipment

	Equipment	Quantity
1	Dewar flask 20 kg. (for storage of nitrogen)	1
2	Dewar flask 11 kg.	1
3	Device for measurement if a cow is in heat	1
4	Artificial insemination toolkit	1
5	Rubber apron	1
6	Protective clothing	1
7	Ruler for measuring nitrogen level	1
8	Tape for identification of live mass	1

Annex N2

	Equipment	Quantity
1	Cheese boiler basin (500 liter)	1
2	Press cart	1
3	Milk pump	1
4	Generator (5 kw)	1
5	Water reservoir(1.5 tone)	1
6	Hot water washing machine	1
7	Water Boiler (200 liter)	1
8	Funnel (stainless steel)	1
9	Electric scale	1
10	Table of stainless steel (2000 X 800 X 850 mm)	1
11	Lacto scan	1

#### Equipment for Artificial Insemination

	Equipment	Quantity
1	Dewar flask 20 kg. (for storage of nitrogen)	1
2	Dewar flask 20 kg. (for storage of nitrogen)	1
3	Device for measurement if a cow is in heat	1
4	Artificial insemination toolkit	1
5	Rubber apron	1
6	Protective clothing	1
7	Ruler for measuring nitrogen level	1
8	Tape for identification of live mass	1

Throughout the whole Georgia the agricultural cooperatives will receive the equipment for dairy production in line with the Annex 3, in case the agricultural cooperative and/or its stakeholder agricultural cooperative and/or the stakeholders of the agricultural cooperative have in possession no less than 150 cows.

#### Annex N3

	Equipment	Quantity
1	Cooling reservoir (1000 liter)	1
2	Cooling reservoir (500 liter)	1
3	Milk pump	2
4	Generator (10 kw)	1
5	Water reservoir (1.5 tone)	1
6	Hot water washing device	1
7	Water boiler (200 liter)	1
8	Funnel (stainless steel)	1
9	Electric scales	1
10	Cheese boiler basin (500 liter)	1
11	Table of stainless steel (2000 X 800 X 850 mm)	1
12	Press cart	1
13	Lacto scan	1.

#### Equipment for Artificial Insemination

	Equipment	Quantity
1	Dewar flask 20 kg. (for storage of nitrogen)	1
2	Dewar flask 20 kg. (for storage of nitrogen)	1
3	Device for measurement if a cow is in heat	1
4	Artificial insemination toolkit	1
5	Rubber apron	1
6	Protective clothing	1
7	Ruler for measuring nitrogen level	1
8	Tape for identification of live mass	1.

Throughout the whole Georgia, the agricultural cooperatives will receive the equipment for dairy production in line with the Annex 4, in case the agricultural cooperative and/or its stakeholder agricultural cooperative and/or the stakeholders of the agricultural cooperative have in possession no less than 300 cows.

#### Annex N4

	Equipment	Quantity
1	Cooling reservoir (2000 liter)	1
2	Cooling reservoir (1000 liter)	1
3	Milk pump	2
4	Generator (10 kw)	1
5	Water reservoir (1.5 tone)	1

6	Hot water washing device	1
7	Water boiler (200 liter)	1
8	Funnel (stainless steel)	1
9	Electric scales	1
10	Cheese boiling basin (1000 liter)	1
11	Table of stainless steel (2000 X 800 X 850 mm)	1
12	Press cart	1
13	Lacto scan	1

#### Equipment for Artificial Insemination

	Equipment	Quantity
1	Dewar flask 20 kg. (for storage of nitrogen)	1
2	Dewar flask 20 kg. (for storage of nitrogen)	1
3	Device for measurement if a cow is in heat	1
4	Artificial insemination toolkit	1
5	Rubber apron	1
6	Protective clothing	1
7	Ruler for measuring nitrogen level	1
8	Tape for identification of live mass	1

The agricultural cooperatives will receive an automatic mobile milking equipment the Annex 5 in case the agricultural cooperative and/or its stakeholder agricultural cooperative and/or the stakeholders of the agricultural cooperative have in possession no less than 2000 breeding ewes in total.

#### Annex N5

	Equipment	Quantity
1	Automatic milking equipment with automatic doors for 24 ewe at a time	1
2	Generator (10 kw)	1
3	Water reservoir (1.5 ton)	1

The agricultural cooperatives will receive the dairy production equipment in line with the Annex 6, in case the agricultural cooperative and/or its stakeholder agricultural cooperative and/or the stakeholders of the agricultural cooperative have in possession no less than 200 breeding goats in total.

#### Annex N 6

##### Dairy Production Equipment

	Equipment	Quantity
1	Automatic milking equipment with automatic doors for 12 goats at a time	1
2	Cooling reservoir (300 liter)	1
3	Cheese boiler basin (200 liter)	1
4	Press cart	1
5	Milk pump	1
6	Generator (10 kw)	1
7	Water reservoir (1.5 ton)	1
8	Hot water washing machine	1
9	Water boiler (200 liter)	1
10	Table of stainless steel (2000 X 800 X 850 mm)	1
11	Lacto scan	1

The capital investment does not include the construction or/and reconstruction works of the buildings, where the appropriate equipment will be located. Construction or/and reconstruction works of the buildings is the obligation of the programme applicant to be implemented in terms of participation, in accordance with the conditions of under the signed contract with programme participant.

Capital investment in sheep-breeding agricultural cooperatives will be implemented with the 30% of co-financing from the cooperative.



The purchase of the infrastructure is implemented by the Agency according to the conditions of the programme in line with the scope of the raw milk collecting plant requested by the applicant.

Assembling of equipment and inventory for the raw milk collecting plant for the participant is implemented by the agency in the framework of the capital investment.

#### **Technical Assistance**

The Participants will receive a technical assistance in the following directions within the framework of the Program:

- Technical and methodological issues related to functioning of the raw milk collection points
- Implementation of the specific requirements related to raw milk collection and processing
- Introduction of the corresponding methodology on site with regard to the laboratory examination of raw milk.
- Training in artificial insemination and use of machinery

#### **Eligibility Criteria for Program Participation**

The right to participate in the programme shall be given to the agricultural cooperatives, which meet the following requirements:

- Have received the status of the agricultural cooperative in compliance with the Georgian Law on Agricultural Cooperatives;
- At the moment of submitting the application, the applicant has not received any recommendation on eliminating the defects excluding the case when the applicant eliminated the defect after receiving such recommendation and can provide evidence on elimination of the deficiency;
- The applicant agricultural cooperative and/or its stakeholder agricultural cooperatives and/or stakeholders of the cooperatives have in possession the number of cows/breeding ewes, breeding goats identified by the Programme;
- Does not have any tax obligations;
- The applicant should have in ownership the land plot registered in the LEPL National Agency of Public Registry or building where the applicant wants to install the raw milk collection-processing point, which should satisfy the requirements put forward by the Law of Georgia proved through the certificate issued by the LEPL National Food Agency. To install a raw milk collection point and processing point at various places the cooperative should have in possession land and/or building necessary for unit.

The agricultural cooperative, which has already been provided with the dairy production equipment in the framework of the Programme in case of submitting the application for the second time, is obliged to increase the number of cows owned by him and/or his stakeholders in line with the numbers defined by this Programme. In case when one individual is a stakeholder of two or more agricultural cooperatives, it is prohibited to make an entry on the same cattle owned by him in the applications of several cooperatives.

The cooperative must present the following documentation when registering for the programme:

- Certificate from the LEPL National Food Agency on the ownership of cows, breeding goats and breeding sheep by the cooperative and/or its shareholder agricultural cooperative and/or shareholders of the shareholder agricultural cooperative;
- Certificate on absence of debt from the e-portal of LEPL Revenue Service;
- Extract from the LEPL National Agency of Public Registry on building/construction of enterprise or information on land plot in ownership of applicant and shareholders where they want to arrange a raw milk collecting plant.

The cooperative, which will undergo the registration for the programme successfully, is sent a notification on the engagement in the programme and is given a timeframe not exceeding a 30 working days to present a permission of the construction/equipping of the building defined by the programme. After presenting the above-mentioned permission, the contract is signed between the agency and the participant.

#### **Submitting electronic application for participation in the programme**

The application for the programme can be submitted via the official web site of the Agency (<http://www.acda.gov.ge>). The applicant will be registered after submitting the application. In case of any discrepancies in the data submitted by the applicant, the Agency will send a notification to the applicant on elimination of such discrepancies within no later than 10 (ten) working days. The notification will be sent to the official email of the applicant cooperative and will become effective immediately after sending.

In cases when the applicant fails to eliminate the defect within the set timeframe, the application will not be reviewed.

#### **Preconditions for obtaining support under the Programme**

The agreement concluded between the Participant and the Agency foresees fulfillment of the following obligations/preconditions by the programme Participant before and after receiving the capital investment and technical assistance:

- The participating cooperative, its stakeholder cooperatives and/or the stakeholders of the member agricultural cooperatives shall have in ownership the number of cows, breeding ewes or breeding goats defined by the Programme and registered by the LEPL National Food Agency.
- The Participant arranges or takes responsibility to arrange raw milk collection point with necessary building and facilities in no later than three months from the signature of the agreement. The facilities, in accordance with the conclusion of the LEPL National Food Agency, shall meet the required criteria.
- The Programme participant is obliged in one month from the date of signature of the agreement to present to the Agency the bank statement as a proof of availability of the financial resources outlined in the agreement with regard to the co-financing by the participant
- Space for the building of the milk collection-processing plant when requesting equipment detailed in the Annexes should be as follows: Annex 1 – no less than 45 square meters, Annex 2 - no less than 80 square meters, Annex 3 0 no less than 165 square meters, Annex 4 210 square meters and Annex 6 130 square meters.

In cases, where the Programme Participant has fulfilled all obligations required under the Programme the Participant will be notified about the final decision in 20 (twenty) working days after receiving the documented evidence.

Based on the contract, the participant is responsible within no later than 1 month period from the receiving of capital investment to register in the registry of rights on real estate an obligation on prohibition of alienation of the plant building for the period of 5 years.

When the evidence requested by the programme is not fully provided by the applicant or other discrepancies hindering the positive decision of the agency on provision of the infrastructure in line with the programme are outlined, the agency defines for the participant the timeframe of no more than 1 month. The agency will review the additionally provided documentation within the 10 (ten) working days from the submission.

In case when the participant cannot satisfy the demands defined by the programme the Agency is entitled to implement the capital investment under the programme in line with its set conditions in other agricultural cooperative.

**Responsibilities to be fulfilled by the participant after receiving capital investments:**

After the conclusion of the contract, the participant is obliged within 5 (five) years to fulfill the following responsibilities:

- Avoid alienation of the land plot where the building/facilities and the infrastructure engaged in this Programme are located, unless such alienation to another agricultural cooperative is permitted by the Agency by advance written approval.
- Ensure implementation of the basic safety rules in the production plant.
- Ensure maintenance of the minimum numbers of cows/breeding ewes/breeding goats envisaged by the Programme.
- Maintain the status of the agricultural cooperative.
- Provide regular examination and veterinary control of cattle within corresponding terms.
- Ensure documenting/maintaining of raw milk intake daily data.
- From January 1, 2017, ensure cooling of at least 30% of cattle stock only through artificial insemination, make records and submit relevant documentation to the Agency (indicating the date and species used).
- To present to the Agency quarterly reports on the uphold work no later than 1<sup>st</sup> month of the next quarter up to the 15<sup>th</sup> date; annual report should be presented no later than 15<sup>th</sup> of February of the next year.
- The agricultural cooperatives registered in the mountainous settlements, which have received the milk plant equipment in line with the Annex 1 and Annex 2 should ensure receiving of no less than 45 tons of raw milk annually from the shareholders. The agricultural cooperatives, which have received the milk plant equipment in line with the Annex 3, should ensure receiving of no less than 140 tons of raw milk. In case of receiving the equipment according to the Annex 4 – no less than 280 tons of raw milk should be received.
- Sheep breeding and goat breeding cooperatives should carry out a daily registration of the services provided to their shareholders.
- Should receive recognition from the LEPL National Food Agency before starting its activities.

In case, if the participant of the programme wishes to relocate the enterprise within 5 years of the concluded capital investment contract, he should inform the Agency in advance. In case of Agency's permission, if the arrangement of the enterprise is done in accordance with the requirements of this programme it will not be considered as a violation of the conditions of the participation in the programme.

In case of partial and/or complete non-fulfilment of commitments by the programme participant undertaken in the framework of the capital investment according to the proper conclusion made of the Agency, additional period is determined to agricultural cooperative in order to fulfil the proper obligations, but not more than 2 months. Programme participant is obliged to eliminate the deficiency within determined period.

In case of failure within the defined period, the contract concluded with the programme participant will be terminated. If, by the time of termination of the contract the participant had received the capital investment, the participant is obliged to ensure full repayment of the value of 100% of the cost of received infrastructure within the period of 3 months.

### **Monitoring**

The field or/and desk monitoring of the compliance of the cooperative's request and fulfilment of the contract's conditions will be provided by the Agency. The field and desk monitoring shall apply to the Applicant as well as to the Participant at any stage of the Programme implementation. The Participant shall be subject to monitoring during five years from the date of the signature of the contract.

## **Attachment 7: Proposed criteria for selection of farmers and aggregators for establishment of value chain clusters (under DVCF)**

### **Farmers**

In order to ensure full transparency and accountability on this sensitive selection process, a selection and targeting grid, using scores for each criterion, will be developed during pre-inception phase, tested in the field to ensure its operationality, and submitted and validated by the first Programme Steering Committee.

1. **Gender aspects:** youth are more inclined to innovate and adopt modern technologies, but also to invest in the long term. Young farmers will thus be considered in priority
2. **Education level:** educated farmers will also be more inclined to adopt technologies and management methods, they will have a facilitated access to information and better networking capacities. Those that have followed specialized agricultural or livestock education curricula should be considered in priority.
3. **Production base:** the existing farm, including the herd (size and genetic characteristics), the infrastructures, equipment will be inventoried and assessed. This shouldn't mean that smaller units should be excluded, the quality and potential of existing production factor should be as important as their quantity.
4. **Access to finance:** farmers who have already accessed to finance institutions, or who have collateral that will enable them to do so, will have better chances to access to fresh investment capital. Existence of core financial resources will also be an asset.
5. **Access to land:** Expansion of feeding resource and modernization of the feeding and fodder conservation system will require additional access to arable land. Availability of this resource in the territory, and accessibility (on the legal point of view, but also price) will be an important criterion.
6. **Existing modernisation dynamic:** the most critical but difficult to assess criteria will be the type of dynamic in which the farmer is involved. It will be critical to select those who are already in a logic of entrepreneurship and modernization and engaged in a process of innovation and economic expansion. Evidences of recent investments in technologies, already adopting advanced farming techniques will help in assessing this dynamic.

### **Aggregators**

Indicative criteria that could be used to select aggregators (processors and/or collectors) will be:

1. Presence in the region and programme to expand
2. Already adopted the food safety norms or close to full adoption of these norms
3. Good financial position to shoulder the partnership costs
4. Existing capacity: over 10 tons capacity will not be eligible for grants for processing facilities
5. Suffering from low capacity utilisation and in need of expanding collection network for improving the supply of raw milk
6. Legal status: preference will be given to cooperatives, but individuals and companies will be eligible
7. Reputation of attractive, regular and timely payment to the suppliers
8. Wish to develop service provision mechanisms (inputs, capacity building) to support their suppliers
9. Wish to develop niche and differentiated ranges of products and willingness to participate in collective branding arrangements
10. Willingness to expand their collection network to mountain and vulnerable areas, and to involve smallholder farmers

## Attachment 8: Draft Terms of Reference for DiMMA Staff

### ToRs of Monitoring and Evaluation Officer

The monitoring and evaluation (M&E) officer has overall responsibility for guiding and leading the overall M&E, targeting, gender, and knowledge management (KM) strategy. The M&E officer will lead enhancement and operations of the existing PMU's M&E system, building up and maintaining the data base necessary for the PMU to do its work efficiently and effectively and providing timely and relevant information to programme stakeholders. S/he will also work closely with offices in the field as well as working closely with other PMU management and technical staff.

The M&E officer reports to the programme director and supervises the work of the M&E specialist and the M&E resource person as leader of a *M&E, learning and impact team*.

The position is based at the IFAD PMU in Tbilisi with frequent technical support and supervision visits to the DiMMA offices and programme implementation sites.

Specific responsibilities include but are not limited to the following:

- Review the existing M&E system and build up an enhanced system of monitoring and reporting with adequate indicators to allow the programme staff to effectively monitor the progress, performance and impact of programme components.
- Develop/strengthen the overall framework for programme M&E - annual programme reviews, participatory impact assessments, process monitoring, operations monitoring and lessons-learned workshops.
- Ensure that programme M&E is carried out in accordance with the programme's guidelines and procedures.
- Help revise the programme Log frame matrix, particularly indicators and monitoring mechanisms.
- Oversee the development of, and manage the M&E system (database and e-library repository).
- Develop an M&E service pack (reporting formats for data and narrative) for the staff supervising and managing implementation and service providers, and assess and develop trainings in data collection tools as needed, to ensure that appropriate measures are established and implemented by service providers to provide sufficient basis for review of programme progress and for monitoring changes seen on ground.
- Support the community development / gender specialist's targeting and gender activities in programme implementation, including providing technical assistance to service providers on gender issues and programme targets with respect to inclusion of women and youth and ensure adequate awareness and activities in this respect, including during reporting.
- Support the preparation of local AWPBs and then consolidate these inputs to the Programme AWPB, including arranging programme stakeholder review workshops. This work will be supported at national level by the finance manager.
- Review the quality of existing social and economic data in the programme area, the methods of collecting it and the degree to which it will provide good baseline statistics for impact evaluation.
- Set up a participatory system of data collection from all programme partnership to feed into the DiMMA programme M&E system.
- Liaise with staff in the field and other technical staff and set up a system of periodic monitoring reports to be submitted to PMU.
- Based on the AWPB and in particular the programme budgets, design the framework for the physical and process monitoring of programme activities.
- Monitor, record and report physical progress of the indicators against AWPBs.
- Guide staff and implementing partners in preparing their progress reports. Together, analyse these reports in terms of problems and actions needed.

- Prepare consolidated progress reports for programme management to submit to the Government, IFAD and other relevant bodies, in accordance with approved reporting formats and timing.
- Report to IFAD annually on the RIMS indicators.
- Organize programme annual review and planning workshops involving programme stakeholders to gather programme results as well as lessons learnt and successful cases. These should be reflected in programme reports and widely disseminated.
- Define the need for specific M&E and impact studies, design them and supervise their execution.
- Undertake regular visits to the field to support implementation of M&E and to identify where adaptations might be needed.
- Document and collect information on lessons learned, including case studies and special research.
- Follow up on the missing data from the DIMMA baseline survey.
- Organize the DIMMA impact study upon programme completion and follow up on its execution.
- Organize (and provide) refresher training in M&E for programme and implementing partner staff, local organizations and primary stakeholders.
- Assist, as required, the IFAD supervision and other monitoring, review and evaluation missions of DIMMA.
- Undertake any other assignments relevant to DIMMA M&E system as assigned by the PMU director.

**Qualifications and experience:** The candidate should have a Master's degree in management, economics or a similar subject, and specific training in M&E, data management and gender and targeting tools. Other qualifications include:

- At least eight years of work experience, including at least four working with knowledge management, planning, M&E and/or MIS in government/donor projects or large institutions, with knowledge of project logical frameworks and participatory systems.
- Ability to set up and follow through on a monitoring system in a complex environment, and capacity to design and carry out relevant field level verification with data validation tools.
- Knowledge of participatory programme implementation methodologies
- Strong managerial skills and demonstrated capacity to manage people and interact with a wide range of private sector partners, public sector representatives, and development partners.
- Self-motivated, with demonstrated ability to take initiatives and work under a minimum of supervision, but also to work effectively as a member of a team.
- Experience with performance based contract monitoring and output based work planning, budgeting and reporting.
- A clear understanding of aspects of technical writing to different categories of audiences
- Experience working with the media and different stakeholders, as well as events management.
- Knowledge of work planning, budgeting and reporting.
- Fluent written and spoken English and Georgian languages.
- Excellent quantitative and analytical skills.
- Excellent IT skills in particular Excel and knowledge of other M&E applications/statistical software packages (MS Access, SPSS or STATA) would be an asset.
- Proven communication and organization skills.
- Knowledge of gender issues, targeting of interventions.
- Expected to have a creative and pragmatic approach to problem-solving and the ability to think in terms of socio-economic and administrative systems.
- Excellent analytical, report writing, and presentation skills.

**Contract:** Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables

### **ToRs of Procurement Officer**

The procurement officer will be responsible for coordinating the procurement function based on IFAD and GoA guidelines and procedures. Reporting to the programme director, the procurement officer will provide leadership and guidance to all PMU staff on procurement issues for works, goods and services.

The position will be based at the IFAD PMU in Tbilisi and will require frequent travel to the programme sites.

Specific responsibilities include but are not limited to the following:

- Review and provide more detail, where required, on the procurement sections of the programme implementation manual (PIM), particularly relating to implementation of the community infrastructure, start-up and matching grants activities.
- With other members of the PMU and implementing partners, prepare the rolling 18-month procurement plan for works, goods and services required by the programme and submit for approval by the GoA and IFAD along with the AWPB.
- Lead an orientation programme for all SPs on the principles and application of IFAD procurement procedures and guidelines and use of the PIM guidelines.
- Lead, supervise and advise, where needed, preparation and collation of tender and contract documents for specific procurements according to IFAD and GoA guidelines. Where necessary, establish and manage tender evaluation committees.
- Assist PMU staff and other implementing partners to prepare terms of reference (TOR) and contractual documents for scheduled procurement activities and ensure that all implementation actors (including the community) have necessary inputs into the preparation process.
- Prepare tender notices and advertisements in appropriate national and international papers and websites as required.
- Participate in relevant tender committee meetings and assist with the preparation of committee reports. Act as secretary of the Evaluation Committee.
- Participate in contract negotiation, drafting and signing of contracts, and provide procurement guidance.
- Establish and maintain a monitoring systems to ensure the completion of procurement process according to the annual procurement plans.
- Maintain procurement files containing high quality and readily available information for review by supervision missions.
- Maintain the contract register and regularly update the same with monitoring data on progress of all contracts.
- Report in writing to the programme director on potential or actual violation of contractual terms by contractors and service providers for appropriate sanctions.
- Assist auditors/IFAD staff during auditing/post procurement reviews. and,
- Undertake any other relevant duties assigned by the programme director.

**Qualifications and experience:** The procurement officer should have a Bachelor's degree in Commerce, Public Administration, Law, Accounting or any other related field. A post graduate qualification will be an added advantage. Other experience include:

- A minimum of eight (8) years of experience dealing with procurement of civil works, goods and services, and with the award of contracts for Government/donor funded projects.
- Experience in working with international donor procurement processes.
- Experience in preparing tender and contract documents for national and international competitive bidding.

- Preferably, experience in managing procurement for community based grant activities.
- A comprehensive knowledge of Georgia's Public Procurement Regulations, as well as procurement guidelines for IFAD and the World Bank.
- Computer-literate including the use of Excel, Word and basic data bases.
- Fluent written and spoken English and Georgian languages.
- Excellent interpersonal and communication skills.
- Strong organizational skills and knowledge of strategic planning.

**Contract:** Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables

### **ToRs of Finance Manager**

The Finance Manager reports directly to the programme director, and is responsible for financial management of the programme and for maintaining all programme accounts in good order. As head of the finance unit, the finance manager will take charge of all matters in the programme accounting cycle. The programme accounting cycle to be overseen by the financial controller starts from financial-related inputs in AWPB preparation and budget control, committing funds, disbursements and cash flow management in an effective and efficient manner, financial reporting to ensuring smooth audits and facilitation for supervision missions on all financial management aspects.

The position is based in XXX with some travelling to the programme area to assist field staff with training and implementation support.

Specific responsibilities include but are not limited to the following:

- Compiling the consolidated AWPB, incorporating the inputs from all stakeholder including, programme management, procurement and operational staff and other technical PMU staff.
- Overseeing the establishment of an acceptable computerised bookkeeping and accounting system and supervise the accounts/book keeping staff.
- Establishing and managing an accounting system to manage payments for the programme community infrastructure, start-up and matching grants programme.
- Supervising adherence to the schedule of authorized expenses and the established standards of budgetary rationality, austerity and discipline.
- Guiding programme management in the management of the designated Account and Programme Accounts including preparation of monthly account reconciliations.
- Managing the cash flow in accordance with the payment schedules and programs deriving from contractual obligations for the operational and administrative areas.
- Maintaining all personnel records including dates, leaving dates, leave records and payment of salary of the programme staff.
- Undertaking financial management of contracts entered into by the programme and maintain an up-to date register of contracts.
- Maintaining all asset registers in accordance with IFAD and GoA rules including annual inventory exercises.
- Providing monthly, quarterly, semi-annual and annual financial reports to programme management and IFAD including: expenditures by category and by financier, expenditures by component and financier, withdrawal application statement, financial performance of the Programme compared with the annual work plan and budget and variance analysis, six months treasury forecast etc..
- Directing the formulation and consolidation of annual programme financial statements in accordance with internationally acceptable accounting standards (IPSAS cash)
- Arranging for annual audits to be commissioned in a timely manner and be responsible for all audit reports and financial statements.



- Responsible for carrying out the procedures and internal control mechanisms necessary for the utilization and protection of programme financial resources including updating the Financial Management procedures manual.
- Responsibility for the compliance with the existing legal norms and regulations governing financial planning according to the Programme Design report and the IFAD financing agreement.
- Preparation of withdrawal application to IFAD and GoA, including the submission of all required documentation for the withdrawal applications including assembling the necessary information to support the special account replenishment and direct bank payments to suppliers, consultants and contractors.
- Undertake any other relevant duties assigned by the programme director.

**Qualifications and experience:** A university degree in finance, accounting or economics.

- A minimum of five (5) years professional experience in finance or business accounting.
- A minimum of three (3) years of work experience in the projects funded by the World Bank, IFAD or other International Financial Institution or in other international projects is preferable.
- Membership of a recognised accounting professional organisation.
- Fluent written and spoken English and Georgian languages.
- Perfect computer (PC) and 1C accounting software skills.

**Contract:** Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables.

### **ToRs of Accountant**

The accountant reports to the Finance Manager, and is responsible for ensuring a proper accounting filing system and follow up of accountabilities, staff, and other implementers, data entry and reconciliations.

Specific responsibilities include but are not limited to the following:

- Establishing and maintaining all programme accounts for expenditures by appropriate categories, including the Programme Account (Government contribution) and the Designated Account at a designated commercial bank, using sound accounting practices.
- Properly record disbursement activities in the accounting system
- Liaising with and ensuring all source documentation is provided for all payment claims.
- Preparation of source documents, e.g. payment vouchers, journal vouchers
- Chronological filing of documents with adequate cross reference to ensure ease of retrieval
- Follow up of accountabilities, maintaining a detailed log of outstanding accountabilities
- Data entry into the accounting system
- Preparation of reconciliations for review by the finance manager.
- Provide required orientation and training for programme staff and SPs.
- Facilitate both internal and external auditors to audit the programme's financial transactions and reports to meet the required submission dates by IFAD.
- Support the finance manager in preparation of reports to enable the withdrawal of funds from IFAD and GoA.
- Verify supporting documents for all disbursements, including invoices and transportation documentation of goods, works and services providers
- Maintain key registers such as fixed assets. inputs into the contracts register, contract monitoring forms
- Support the finance manager in the preparation of informative management accounts in the form of monthly, quarterly, semi-annual and annual reports regarding aspects of programme financial monitoring bringing out variances and advising implementers as to the limits of expenditure.

- Carry out any other activities that are assigned by the finance manager.

**Qualifications and experience:** The candidate should have a Bachelor's degree in accounting.

Other skills and experience should include:

- At least 3 years of relevant work experience
- Excellent quantitative and analytical skills.
- Computer-literate including accounting packages 1-C and well-versed in the use of Excel, Word and basic data base set-ups.
- Fluent written and spoken English and Georgian languages.
- Experience in a development projects funded by the World Bank, IFAD or other International Financial Institution or in other international projects will be considered as an asset.

**Contract:** Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables

### **ToRs of Community Mobilisation / Gender Specialist**

Community development and empowerment, and gender mainstreaming activities within DIMMA will be led by the community development / gender specialist. The specialist has overall responsibility for achieving the programme objectives, outcomes and targets identified in Outputs 1.1.1 and 1.1.2 (with the agribusiness specialist) and 2.2. The community development / gender specialist reports to the Agribusiness specialist.

The position is based in XXX with frequent technical support and supervision visits to programme implementation sites.

Specific duties include but are not limited to the following:

- Ensure that planned programme activities are implemented in an integrated manner and take into account the needs of the local communities and the target poor households
- Support the service providers / implementing partners (SPs) to integrate cross cutting issues into programme activities to ensure that correct targeting is done (with a focus on gender mainstreaming).
- Provide orientation sessions to programme staff and SPs on DIMMA social mobilization and gender strategy and approaches.
- Develop the gender strategy for the programme based on the log frame, working papers and PIM in consultation with programme staff, service provider and women and men in target households. Document this in a Gender Action Plan (GAP) specifying roles, responsibilities strategies and targets for working with women.
- Identify gender and targeting issues in implementation of each programme component and design strategies and tools for addressing them through regular field visits for meetings with women and men in villages, SP and local staff.
- Assist the SPs develop the community mobilization processes for the programme and to provide the necessary guidance and staff training for integration with programme supported community infrastructure, market chain development and agri-business activities.
- Provide programme and SP staff with assistance in mainstreaming gender and community mobilization as required.
- Assist in conceptualizing women's forums at local and regional level to ensure that women's voices, learning and networking as livestock and poultry farmers is strengthened.
- Oversee the implementation of the community mobilization strategy with a strong focus on the involvement of women and households from the programme's target group.
- Lead the youth capacity building and, income generating activities and skills development, supported by the agribusiness specialist.
- Guide the process of identifying the poor households to be supported with start-up grants provided by DIMMA.

- Ensure that communication materials about the programme activities are developed for the mobilization of communities and interest groups.
- Develop and maintain working relationships with the GoA ministry(s) responsible for gender and youth affairs.
- Ensure that the technical content of the information provided during the mobilization process e.g. in the newsletter, radio broad casts and productions is appropriate and accurate.
- Report on social mobilization, gender and targeting issues on a quarterly basis.

Any other duties and assignments relating to DIMMA as may be assigned by the programme director.

**Qualifications and experience:** The community development / gender specialist should have a higher-level university degree in social science / or a field related to rural community development.

A minimum of 10 years of experience in community development and applied gender mainstreaming at programme / or institutional level. Experience in designing and implementing successful communication and knowledge management strategies for sustainable development. Other qualifications and experience should include:

- Rural development programme management and implementation
- Computer literate
- Strong inter-personal skills
- Strong analytical skills
- Self-motivated and creative thinker
- Proven ability to work in teams
- Strong oral and written communication skills in English and Georgian. Strong social skills and open-minded
- Ability to work independently and with limited supervision

**Contract:** Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables

### **ToRs of Regional Coordinator (agribusiness specialist)**

Position: Regional Coordinator / Agribusiness Specialist

Location: Regional Office - Kutaisi

Reporting to: Programme Manager

#### **Educational Background:**

MSc in agribusiness, agricultural economics

#### **Experience:**

- At least 10 years of experience in the supporting agricultural value chains;
- Experience in the dairy sector
- Practical working experience in programme coordination;

**Duties and Responsibilities** include, but are not limited to:

- Lead and coordinate field activities conducted under component 1 and 2
- Administrate the regional office
- Coordinate the actions implemented by the 3 local offices and ensure their alignment with programme strategy and AWPB
- Provide methodological and technological support as well as strategic guidance to the LOCs, the FF

- Lead the recruitment of LOCs and FFS
- Select the Private Capacity Building Service Providers and supervise their work
- Provides direct business and marketing support to processors and farm level service providers, in coordination with the CBSP
- Mobilize international and national expertise
- Leads the preparation of training and coaching material in the area of business development and market access
- Ensures coordination and consultation with regional institutions
- Coordinate staff initial and continuous training
- Prepare necessary reports as required by the Programme Coordinator and IFAD.

### **ToRs of Regional Livestock Specialist**

Position: Regional Livestock Specialist

Location: Regional Office - Kutaisi

Reporting to: Regional Coordinator / Agribusiness Specialist

#### **Educational Background:**

MSc in veterinary medicine, in animal production or animal science

#### **Experience:**

- At least 10 years of experience in the dairy sector
- Good knowledge on dairy processing and food hygiene
- Practical working experience in development programme

**Main Duties and Responsibilities** include, but are not limited to:

- Provides technical support to the Regional Coordinator and assists him on technical aspects related to dairy production
- Provides technical support to the LOCs and the FF
- Assist in the recruitment of LOCs and FFS
- Leads the preparation of training and coaching material in the area of dairy production, processing and food safety
- Participate in staff initial and continuous training
- Prepare necessary reports as required by the hierarchy

### **ToRs of Local Office Coordinators (LOCs)**

Position: Local Office Coordinators (LOC)

Location: Local Offices – Regional level (3)

Reporting to: Regional Coordinator / Agribusiness Specialist

#### **Educational Background:**

Bachelor Degree in agriculture or livestock

#### **Experience:**

- At least 5 years of experience in rural development projects

- Good knowledge on the dairy sector

**Duties and Responsibilities** include, but are not limited to:

- Coordinate and monitor activities implemented by FF and CBSP, including:
  - Initial mobilization, mapping and targeting
  - Training
  - Coaching (of farmers by FF and enterprises by CBSP)
  - Demonstrations
  - Field days
  - Selection of beneficiaries
  - Formulation of BP
  - Monitoring of implementation of BP
  - Facilitation of VC cluster platform activities
- Monitor implementation of contracts with CBSP and other local level service providers
- Ensures coordination and consultation with local institutions including municipalities
- Organize exchange visits
- Provides technological support to the FF
- Assist in the recruitment of LOCs and FFS
- Leads the preparation of training and coaching material in the area of dairy production, processing and food safety
- Participate in initial and continuous training of FFs
- Prepare necessary reports as required by the hierarchy

### **ToRs of Field Facilitators (FF)**

Position: Field Facilitators

Location: Clusters

Reporting to: Local Office Coordinators (LOC)

May be recruited directly by the PMU or by service provider

#### **Educational Background:**

Diploma or bachelor's Degree in agriculture, livestock, social science

#### **Experience:**

- At least 5 years of experience in rural development projects and community development
- If possible, previous experience or knowledge in the dairy sector

**Duties and Responsibilities** include, but are not limited to:

- Initial mobilization, mapping and targeting
- Training of farmers
- Coaching of farmers
- Organization and follow up of demonstrations
- Organization of field days

- Selection of beneficiaries of demonstrations, DVCF, CB activities
- Formulation of BP of farmers
- Monitoring of implementation of BP of farmers
- Facilitation of VC cluster platform activities
- Prepare necessary reports as required by the hierarchy

### **ToRs of Capacity Building Service Providers**

Function: Capacity Building Service Providers

Location: Region (1 per region, or across regions)

Reporting to: Local Office Coordinators (LOC)

Will be private companies contracted as service providers

### **Competences**

- Business development
- Market development
- Dairy production
- Dairy processing
- Food hygiene and safety, HACCP

(The CBSP may mobilize several experts)

**Duties and Responsibilities** include, but are not limited to:

- Training of enterprises: farm level service providers, processors, collectors and taders
- Regular coaching (provision of business development and technical support) to enterprises
- Design of pilots on processing, collection and farm level service production
- Organization and follow up of demonstrations on processing, collection and farm level service production
- Support to FF for organization of field days on processing, collection and farm level service production
- Support to FF Selection of beneficiaries of demonstrations, DVCF, CB activities days on processing, collection and farm level service production
- Formulation of BP of enterprises
- Monitoring of implementation of BP of enterprises
- Technical support to VC cluster platform activities

## **Attachment 9: Draft Terms of Reference for stakeholder mapping study**





## **Appendix 6: Planning, M&E and learning and knowledge management**

### **A. Planning**

1. Planning for DiMMA will be through the detailed Annual Work Plan and Budget (AWPB). The first AWPB will be prepared along with the 18 months procurement plan and presented during the start-up workshop for and sent for IFAD for no objection.
2. The preparation process for the AWPB will take into consideration the planned activities schedule as per the cost tabs, data from the M&E system, and discussions/meetings with different stakeholders. A draft AWPB will be sent to PSC for comments by end of September each year. Comments will be incorporated into the AWPB which will be sent to IFAD no later than 60 days before the beginning of the relevant programme year. The AWPB will consolidate the programme's quantitative financial and physical output data in Excel based Management Information System.
3. The PMU will use Excel based sheets to consolidate the programmes' quantitative financial and physical output. The Excel sheets will include planned and actual data by financing source, category of expenditure, gender, status and timing of all activities on (i) financial expenditure; (ii) physical outputs and outreach; (iii) procurement and contracts; and (iv) core indicators for the ORMS system. The PMU will ensure that all essential numerical tables for AWPB and Progress Reports can be generated, as well as comprehensive monitoring of programme spending and outputs on a daily basis.
4. The AWPB will serve as a tool for guiding programme implementation (through dairy value chain clusters) and as a collection of benchmarks against which the programme performance can be measured in each implementation year. The presentation will follow the logical framework hierarchy of objectives by component/sub-component.
5. The content of the AWPB will include; the annual planning process, programme strategy and focus for the year, key constraints and actions needed, implementation approach, components activities and expected targets, consolidated annual budget by financier, categories of expenditure by component/sub-component and agencies responsible for delivery of activities. In addition, it will include appendixes on the logical framework, organization chart, 18-month procurement plan and staff development plan. Detailed guidelines on the AWPB preparation process will be included in the programme implementation manual (PIM).

### **B. Monitoring and Evaluation**

6. The PMU M&E specialist will be responsible for M&E activities supported by consultants to conduct annual data collection. The M&E specialist would be responsible for collection of relevant data on the activities, outputs, and outcomes for different interventions. The performance of components and sub-components will be assessed based on the information collected from the field.
7. During the first year of programme implementation technical support will be given to the programme staff to build their capacities and ensure that the M&E system is in place to provide all the required information and reporting. The M&E and knowledge management (KM) activities will be fully described in the programme implementation manual (PIM).

### **Results Based M&E**

8. The results-based approach will be adopted through the M&E system. This will be through accounting for progress against AWPB targets; and periodic assessments of movement towards achievement of beneficiary impact. The PMU M&E specialist will develop the M&E matrix and performance checklist to orient the selection of indicators, baseline data, methods for data collection, synthesis and a communication strategy for lessons learned. The draft programme M&E matrix will be prepared in a participatory manner as part of the start-up activities in line with the logical framework.

9. Key M&E activities will comprise the programme implementation manual and the baseline survey at design stage, the AWPB, quarterly progress reporting of activity and output targets and achievements, mid-term review, and the completion report along with the programme completion survey. The M&E activities will take into consideration the following:

- Data will be disaggregated by sex, age category, province, and targeting groups
- Progress reporting will be in comparison with appraisal targets and the AWPB
- Monthly meeting with PMU to discuss implementation progress versus targets
- Regular field visits from M&E specialist/assistants and component officers
- Documenting of stories from the field for different component beneficiaries
- Reporting on lessons learned and best practices and working on scaling-up

### **Core M&E Activities**

10. **Programme Baseline Study.** The programme baseline is a critical element in the programme M&E system. It provides the basis for the assessment of how efficiently the activity has been implemented and results achieved. Data from the baseline for the M&E indicators will be updated on annual basis to track the different programme indicators over time, including for the MTR. Under the M&E system the data will be analyzed to ensure that DiMMA activities are on the right directions and assess whether or not the targets for the indicators will be achieved.

11. **Annual data collection.** On an annual basis, a representative sample of the beneficiaries will be selected for data collection to capture data related to implementation progress and changes in beneficiary status. The programme will follow the annual outcome survey methodology. The annual outcome survey (AOS) is a programme M&E tool to measure the progress of IFAD-funded operations towards their objectives. Annual outcome surveys allow programme managers and stakeholders to review a programme's performance and outcome at the household level, assess the efficacy of its targeting strategy and provide early indication of its success or failure. AOS were introduced in 2009 to shift the focus from documenting impact at completion to measuring programme outcome during implementation.

12. **Mid-term Review (MTR).** This is an external process and progress evaluation towards the middle of the period of implementation of the programme, i.e. in year 3. It will assess operational aspects such as programme management and implementation of activities and the extent to which the objectives are being fulfilled. It will focus on corrective actions needed for the programme to achieve impact. Before the MTR mission, the programme will ensure that the updated baseline data and the progress on the log frame indicators is available. This data available in hand during the MTR will facilitate the missions' assessment of the programme overall performance.

13. **Programme completion survey (impact evaluation)** will use the same questionnaires used for the baseline to allow for comparison against baseline results. In addition, a panel of households will be interviewed to provide a thorough qualitative analysis of programme impact. Moreover, analysis will be done by beneficiary status, region and gender of household head.

14. **Beneficiary database.** The database will be developed for all beneficiaries of the programme. Details about each beneficiary will be included in the database including: physical address, national identification, age, sex, activities participated in, and key baseline figures (number of livestock, income, dairy production). The database will allow for tracking beneficiaries and activities as well as providing a mean for sampling for data collection and visits during supervision missions.

15. **Geo referencing.** All activities of DiMMA will be geo referenced at the village level. This will allow for monitoring of the coverage of the programme intervention as well as the concentration of certain activities in specific areas.

16. **New ORMS system.** The new system links the outputs and outcomes (core indicators) to strategic objectives (SOs) and areas of thematic focus of the IFAD Strategic Framework 2016-2025.

The new core indicators that are relevant for the DiMMA programme are already included under the log frame.

### **Reporting**

17. **Progress Reports.** The physical and financial progress reporting will be tied to the AWPB targets. The progress reports will compare actual achievements against those planned, including expenditures, and explaining variations between the two. The semi-annual physical progress will be recorded in terms of quantitative outputs, activities and inputs, presented in tabular spreadsheet forms. The consolidated progress report will identify the constraints to implementation and corrective actions that have been taken. The progress report will also describe the number of beneficiaries, disaggregated by sex and age category (youth) including the type of activities they have participated in. Those progress reports will serve as knowledge products.

18. The main functions of progress reports will be:

- Review current progress compared to planned activities, and expenditure compared to budget;
- Provide overall status information on the programme since it started, in terms of physical progress and total expenditure;
- Identify problems during the reporting period and steps to solve these problems;
- Analyse strengths and weaknesses, opportunities and threats;
- Discuss quantitative and qualitative progress made in achieving overall objectives; and
- Provide strategic direction for the next planning cycle.

### **Organization, Staffing and Implementation Arrangements of M&E**

19. The M&E function will be undertaken by the M&E specialist at the PMU. She/he will be responsible for the following tasks:

- Develop monitoring instruments and revise/modify these after field-testing.
- Review the quality of existing social and economic data in the programme regions, the methods of collecting it and the degree to which it will provide good baseline statistics for impact evaluation.
- Collect and record data by programme component.
- Process and analyze data to provide information for reviews and reports.
- Assist in preparing the annual work plan and budget of components/activities.
- Prepare and submit routine reports.
- Organize formal and informal discussions, meetings, workshops for reviewing and implementation for reflection.
- Establish a feedback loop by providing and receiving feedback to and from all stakeholders concerned, and follow-up.
- Conduct regular field visits and collect relevant data required for the M&E progress indicators.

### **C. Learning and Knowledge Management**

20. The learning and knowledge management process will be part of the regular M&E activities. Lessons learned will be prepared and reported covering each component activities. The learning and knowledge management activities will include the regular monitoring mechanisms, baseline studies including design studies, progress reports, mid-term evaluation, and impact assessment evaluation at the end of the programme.

#### **Learning**

21. Building on lessons from IFAD country programme in Georgia and the recent COSOP, special attention will be put on making sure: (i) programme launch is effective for visibility (ii) knowledge

management indicators are included in the M&E system; (iii) of setting up solid information management systems (e.g. electronic archives); (iv) clarifying roles and responsibilities in knowledge management in the programme management and implementation teams; (v) facilitating internal programme learning and cross-programme exchanges; (vi) organizing exchanges with other projects and agencies, organizing targeted workshops, and other activities to disseminate results and attract the interest of government and development partners for improvement of their practices, replication and scaling up of tested and documented innovations.

22. The multi-stakeholder platform meetings will be a learning process including discussions on the various topics related to the development cluster approach and the dairy value chain development. It will provide a venue for discussing programme achievements and innovations, identifying successes and problems as well as good practices, and promoting possible solutions. Since all stakeholders will participate in those meetings it will be a learning loop through the implementation of the programme. The feedback loop will be created to allow for the flow of knowledge from cluster level to the regional level and the central level in Tbilisi as well as providing feedback across the same chain.

### **Innovation and scaling up**

23. The programme concept is innovative and will include a number of activities to support innovative approaches. Those innovations will be assessed and analysed for possible replication and scaling-up. In order to be effective, a Knowledge Management and Communication Strategy (KMCS) will be developed.

24. The strategy will include which thematic areas of learning the programme will be focusing on (market facilitation, value chain cluster approach, multi-stakeholders platforms, access to markets, technical innovations in production, etc). The strategy will outline how the knowledge generated will be disseminated and will identify most appropriate channels.

25. Innovations and best practices at village level will be documented for the purpose of replication and scaling-up. Farmers with innovations and best practices will be used as mentors for other farmers in order to accelerate the scaling-up and replication of those innovations

### **Knowledge Management**

26. Knowledge management will play a central role in the programme. Knowledge generated by this programme will contribute significantly to the design and implementation of youth empowerment agricultural interventions within the agriculture sector as a whole with support from the GoG. The MSPs present a powerful mechanism through which knowledge sharing will happen to improve information flow among diverse stakeholders.

27. Capacity building for learning and knowledge management activities may include on-the job training on and specialized training sessions on data management, reporting, and information dissemination undertaken by the PMU staff while undertaking the planned programme activities.

28. During the final year of programme implementation, as part of the preparation of the IFAD-required programme Completion Report/Impact Assessment (PCR), the M&E data collected over the programme implementation period will be form part of a thorough assessment of programme achievements. In particular, this shall compare changes in the livelihoods of beneficiaries that relate to the implemented programme activities against the situation documented in the baseline study. The PCR shall share lessons learned and development experience.

29. A knowledge management / innovation system will be established at PMU to ensure an improved flow of technical knowledge and feedback between the cluster level, Regional level and the PMU. The PMU M&E officer will analyse the information received and produce learning notes/knowledge products. KM activities will include sharing programme results and lessons with the government and other donors in the country.

30. The PMU will work on dissemination of programme lessons and results. Apart from outreach, KM activities will integrate KM and communications and provide detailed information needed for the policy dialogue process, to promote a more supportive policy framework for livestock development.

## Appendix 7: Financial management and disbursement arrangements

1. **Country fiduciary risk assessment.** The country fiduciary risk assessment is rated as medium. A Public Expenditure and Financial Accountability (PEFA) Assessment by the World Bank in 2009 and updated in 2013. It was noted that several areas of weaknesses found in the PFM systems have advanced significantly (22 of 28 indicators were improved with 16 indicators achieving A level). Noteworthy are, systems have been put in place for strategic budget planning, budget formulation and execution. The integrated public financial management system is being implemented and according to the Ministry of Finance (MoF), several key modules are already in place. These include Treasury Operations, Spending Institutions, Budget Preparation, Payroll and External/Internal Debt Management modules introduced by the MoF Financial Analytical Service in January 2012. The introduction of international good practice in the budget cycle of the Government is well advanced, including robust systems for budget preparation, adequate chart of accounts, reliable execution (including accounting and reporting,) and sufficient controls. Accounting, Recording and Reporting indicators also improved and significant improvement has been noted in terms of improving the scope and nature of external audit by the State Audit Office of Georgia (SAOG) who have implemented a much improved set of auditing standards and audit methodology that focus on significant and systemic issues.

2. The Public Finance Management Reform Strategy (2014-17) outlines further reforms strategies to improve the public financial management further. Its priorities include maintaining fiscal discipline and improving fiscal forecast (macroeconomic analysis and forecast, fiscal risks, taxes and customs, state debt), improvement of state finance planning (strategic planning and result oriented budgeting, strategic management and medium term planning, improvement in program budget, expansion and improvement in E-system of the budget management), State Funds Management, Accounting and Reporting (Accounting reforms in the state treasury, inclusion of local self-governance unit budget within the system of treasury service, transfer of legal entities to the treasury service, reforms in internal audit and control, managerial control, development of state electronic services in PFM etc.). PEFA self-assessment is currently being conducted by the GOG while the World Bank will review the assessment in 2018. It is expected that there would be further improvements reported in the assessment.

3. In 2016, Transparency International's Corruption Perception Index ranked Georgia 44 of 176 countries with a score of 57 (up from 49 in 2013). Georgia has repeatedly achieved impressive results in most governance indicators since 2004. Georgia has also been among the best performers in Eastern Europe and the former Soviet Union region according to Transparency International's Corruption Perceptions Index.

4. **Programme fiduciary risk assessment.** Since 1997, IFAD's country programme that are implemented by the MEPA in Georgia consisted of five projects, four of them are closed while AMMAR is ongoing with a completion date of June 2019. All of the projects have been implemented by the MEPA and the financial management for these projects have been rated satisfactory over the years.

5. Following the programme fiduciary risk assessment at Annex 7.2, the overall fiduciary risk is rated as *Medium*, for the following reasons:

- Lack of managerial capacity of current finance team;
- Delayed preparation and approval of AWPB and mismatch with the budget approved by GoG;
- Accounting software developed and maintained by one individual while technical and user manuals are not available;
- Monthly / Periodic Reports are not prepared comparing AWPB with Actuals per Components and per Categories.
- While internal audit department exists in the Ministry of Environmental Protection and Agriculture, it does not review IFAD funded projects.

6. The residual financial management risk may be reduced to *Low*, provided that the programme implements the following key risk mitigation measures:

- Competitive recruitment of a competent and experienced Finance Manager.

- Training on IFAD Financial Management guidelines and procedures.
- Development of Job Descriptions, annual targets, annual performance appraisal and increments.
- Support from IFAD Finance team/consultants during the first years of programme implementation;
- Development of a comprehensive Programme Implementation Manual (PIM) and Finance and Administrative Manual (FAM) specifically for the programme.
- Procurement and implementation of an Accounting Software compliant with IFAD requirements through an established software company.
- Alignment of the process of budget preparation for the Government of Georgia and for IFAD purposes by the Programme.
- Monthly & Quarterly Reports to be prepared containing comparison of AWPB with Actuals per Components and per Categories
- Involvement of Internal Audit Department to be ensured through stipulation in the Financing Agreement, TORs to be agreed and capacity to be developed.
- External Audit by State Audit Office (SAI) to be ensured through stipulation in the Financing Agreement, TORs to be agreed and capacity to be developed.

7. **Implementation arrangements.** The Ministry of Finance will represent the Borrower (GoG) while the programme will be implemented by the Programme Management Unit (PMU) of the Department of External Relations of the Ministry of Environmental Protection and Agriculture (Implementing Agency). The overall responsibility for DiMMA's oversight, political guidance and implementation will rest with MEPA. Day to day coordination will be undertaken by the PMU.

8. The principal functions of the PMU will be to carry out the overall programming and budgeting of DiMMA activities, take the lead in implementation - in cooperation with various Government entities, NGOs, MFIs, service providers, dairy processors, farmers, financial institutions, The PMU will be staffed with a programme manager, a senior finance manager, finance manager, value chain livestock specialist, policy specialist, KM & M&E officer, accountant, engineer and other support staff.

9. While guided and supervised by the PMU, implementation of Component One will be undertaken by an implementing body (NGO, consultancy company) with a successful track record developing the Georgian dairy sector, including smallholder farmers. Detailed implementation arrangements for this component would be developed by the PMU in consultation with IFAD and GOG. A possible NGO (HEKS-EPER) has conducted its Financial Management Assessment Questionnaire (FMAQ) as per IFAD requirements, which would need to be verified and confirmed.

10. **Financial Management Organization and staffing.** The PMU will have overall responsibility for Financial Management of the Programme, with the finance team would comprise of a Senior Finance Manager, a Finance Manager and an Accountant. The Senior Finance Manager would be responsible for supervision of all fiduciary aspects, for planning, budgeting, forecasting and financial reporting, and for coordinating with Internal and External Audits and IFAD Supervision Missions; the Finance Manager would be responsible for treasury management, preparation of withdrawal applications, coordination with implementing partners service providers and contractors; and the Accountant would be responsible for processing payments, accounting and administration.

11. The senior finance manager, finance manager and the accountant would be recruited from the private sector on competitive basis, having experience of donor funded projects and with IFAD No objection of the process and the selected candidates. All of the finance team would undertake the IFAD e-Learning on Financial Management and Fiduciary Controls. Detailed job descriptions for financial staff will be included in the PIM.

12. **Budgeting.** All programme activities for all components and sub-components will be included in an Annual Work Plan and Budget (AWPB). The AWPB will indicate what activities and expenditures will be implemented by whom and the extent to which budgeted expenditures are intended to be financed from each financing source (IFAD Loan, IFAD Grant, NGO, Counterpart funds and Beneficiaries). The AWPB will also include (i) full documentation of all unit costs assumptions and hypotheses and (ii) summary tables showing forecasted disbursement rates against allocations (by category and by component). Budgets will be in a format that includes the quarterly financing requirements for each financier separately.

13. The PMU through MEPA will submit to the Ministry of Finance (MOF) for their review the programme's proposed budget by the August of the preceding year. The proposed budget is subject to review by the MOF in September and approval by the Parliament in November negotiations with MOD to determine the final budget allocation. The AWPB will also be prepared in parallel and matching the budget submitted and finally approved by the Government. However, the AWPB and Procurement Plan (PP) would be submitted at least 60 days prior to the start of the next year and IFAD would provide its No Objection within 30 days of the receipt of the draft AWPB and PP.

14. The approved government budget will be incorporated in the treasury budgeting system. AWPB would be incorporated in the accounting system of the programme. The accounting system will allow for budgeting that facilitates tracking of actual against budgeted expenditures by financing category, component and sub-component to facilitate course correction for variance from budget. Regular programme management meeting will be conducted to review the financial performance and to determine if any amendments are required.

15. **Disbursement Arrangements and Flow of Funds.** A chart of the flow of funds arrangements is shown as Appendix 7.1. Ministry of Finance, on behalf of the Borrower, will maintain the Designated Accounts for each financing source in the State Treasury within the Treasury Single FX Account in EUR in the National Bank of Georgia. The incurred expenditures will be covered by from the Treasury budget line of the Ministry of Environmental Protection and Agriculture and subsequently reimbursed from the Designated Account immediately. The programme will use available disbursement methods of replenishment, reimbursement and direct payments. It is expected that most expenditures will be through the designated account using the Imprest mechanism. An initial advance equivalent to approximately 9-12 months of programme expenditure will be authorized so as to ensure a smooth flow of funds and to avoid delays in programme implementation

16. Counterpart contribution for programme activities and foregone taxes will be made available through a single Treasury code/MOF as per approved budget allocations.

17. The Programme will be allowed to use Direct Payment only for expenditures that are in excess of 30% of the advance to the Designated Account. Replenishment Applications will be prepared by the PMU and will be submitted to IFAD, at a minimum every quarter or when 30% of the designated account has been utilized for eligible expenditures, whichever occurs earlier. Details regarding the designated account allocations and SoE thresholds will be found in the Letter to the Borrower/Recipient.

18. IFAD Grant funding would also be directly provided to an NGO (possibly HEKS-EPER) who would also contribute its own funding.

19. Beneficiaries cash contribution on matching grant activities will be deposited into suppliers, contracts and services providers bank accounts in advance and before payment can be made by programme to supplier/service providers. The bank advice of the deposit will be submitted along with other supporting documents for programme contribution payment process.

20. **First disbursement conditions.** The following will be designated as precedent to disbursement of funds: (i) opening of the designated account; and (iii) IFAD no objection on a draft Programme Implementation Manual (including the financial, procurement and administrative procedures manual). In addition, the installation of an acceptable computerized accounting system will be designated as a condition for reimbursement of second WA.

21. **Internal Controls and procedures manual.** Internal Controls are considered adequate. There is segregation of duties described as following The payment process cycle goes through several steps: i) the payment request will be prepared by the respective programme team member, ii) payment request is prepared by the accountant and verified by the finance manager; iii) approved by the programme manager, and iv) payment transaction is authorized by the Deputy Minister. All payments are through electronic bank transfers. Hard copies of all documentation are maintained by the programme and after four years these are sent to MEPA archive.

22. All internal control mechanism will be detailed within the financial management arrangements of the PIM and will be prepared before disbursement begins. IFAD will be requested to provide a No Objection on the PIM.



23. **Accounting systems, policies and procedures.** PMU would acquire and install an accounting software designed (or customizable) for programme accounting that will allow for (i) double-entry accounting, (ii) recording and reporting of transactions by component, category, source of fund, AWPB activity, province and district, (iii) budget monitoring, (iv) automated production of SOE and withdrawal applications, (v) automated bank reconciliations, (vi) contract management and monitoring of financial commitments, and (vii) production of the required financial reports and statements. For selection of software, software used by WB and other donor projects would be evaluated in addition to internationally available software specifically developed for projects. It is important that the software is developed and supported by a well-established software company. IFAD No Objection would be required for the selection of the software to ensure compliance with IFAD requirements.

24. All accounting policies and procedures, related to the programme will be clearly documented in the PIM and Finance and Administrative Manual.

25. **Financial Reporting.** The PMU will prepare monthly financial reports for dissemination to programme management, that will include analyses of disbursement rates by expense category, AWPB financial execution by subcomponent (budget vs. actual for the month and cumulatively), cash position and forecast, implementing partners' financial situation, procurement plan execution and any salient administrative issues.

26. Interim unaudited financial reports (IFR) will be submitted to IFAD within 45 days of the end of each quarter. The IFR will summarize the programme financial situation for each funding source and will include analytical comments on budget variances, as well as any constraints faced in the fiduciary area. The Financial Statements will be in formats acceptable to IFAD and samples of the same should be available in the financial management arrangement of the PIM. The financial reports will provide information to the programme management and stakeholders to facilitate decision processes.

27. Unaudited annual financial statements will be produced by the PMU and submitted to both IFAD and the external auditors within 2 months following each year-end. The financial statements would be prepared in accordance with IFAD and GOG policies. Audited financial statement will be submitted to IFAD within six months of the end of fiscal year.

28. **Internal Audit.** The MEPA has an Internal Audit Department (IAD) comprising of four team members headed by a Director and reporting to the Minister. The IAD performs Financial Audit, Compliance Audit and Impact Audit. The IAD team is reasonably qualified and experienced and IAD function is independent and works according to its annual plan.

29. The IAD audits various departments and programme of MEPA, however is currently not auditing donor funded projects. Capacity building of the IAD is conducted through the MOF Harmonization Center.

30. The capacity of the IAD appears reasonable, however, understanding of funded projects, financing agreement, PIM etc. needs to be developed. Terms of Reference need to be discussed and agreed between PMU and IAD while IFAD's No Objection would be required on the TORs. Involvement of Internal Audit Department to be ensured through stipulation in the Financing Agreement. Internal Audit Reports would be submitted to IFAD at least on an annual basis.

31. **External Audit.** The Programme's consolidated financial statements will be audited annually by the State Audit Office (SAO) which is that Supreme Audit Institution of GOG. The SAO is independent and headed by the Auditor General who is appointed by the Parliament for a period of five years. The SOA has around 350 employees out of which 250 are professional auditors having qualification like ACCA, CPA, CFA etc. SAO conducts Financial Audits, Compliance Audit and Performance audits and its annual report is submitted to the Parliament. SAO has recently procured and implemented an international audit software with the assistance of the WB.

32. SAO has agreed to conduct external audit of IFAD funded projects as per IFAD guidelines, to prepare the audit reports in English language and has accepted public disclosure of audit reports. Terms of Reference need to be discussed and agreed between PMU and IAD while IFAD's No Objection would be required on the TORs, while the auditors need to be appointed/contracted within 90 days of the start of the financial year.

33. In accordance with IFAD requirements, the auditor will be required to issue separate opinions on the programme financial statements, statements of expenditure and the designated account. The final audit report and management letter are required to be submitted to IFAD by the GOG at the latest six months after the end of each fiscal year.

34. **Taxation.** IFAD Loan and Grants proceeds cannot be utilized for the payment of Taxes.

35. **Anticorruption and Good Governance Framework.** Anticorruption and governance framework. The primary responsibility for enforcing good governance (including the detection of fraud and corruption) lies with the Government. Nevertheless, all programme stakeholders should be aware that IFAD applies a zero tolerance policy towards fraudulent, corrupt, collusive or coercive actions in programme financed through its loans and grants. "Zero tolerance" means that IFAD will pursue all allegations falling under the scope of this policy and that appropriate sanctions will be applied where the allegations are substantiated. IFAD shall take all possible actions to protect from reprisals individuals who help reveal corrupt practices in its programme or grant activities and individuals or entities subject to unfair or malicious allegations. Given IFAD's zero tolerance policy described above, it is important that the staff and all stakeholders of the programme are familiar with IFAD's as well as federal/provincial anticorruption policies and whistle blowing procedures. The IFAD anticorruption policy is available on the IFAD website at [www.ifad.org/governance/anticorruption/index.htm](http://www.ifad.org/governance/anticorruption/index.htm) . The IFAD website also provides instructions on how to report any alleged wrongdoing to the Office of Audit and Oversight (<http://www.ifad.org/governance/anticorruption/how.htm>).

36. Additionally, in accordance with IFAD guidelines, procurement for goods, works and services financed from resources funded or administered by IFAD will require bidding documents and contracts to include a provision requiring suppliers, contractors and consultants to (i) ensure compliance with IFAD's anticorruption policy and (ii) allow IFAD to inspect their accounts, records and other documents relating to the bid submission and contract performance, and to have them audited, if deemed necessary. Lastly, the programme will promote good governance through the involvement of communities and beneficiaries in (i) the preparation of the annual work plans and budgets; (ii) the procurement process (at community level); and (iii) the monitoring and evaluation of programme activities.

37. **Financial management supervision and implementation support.** In light of the risk assessment, the supervision and implementation support plan of the programme will especially focus on the following actions:

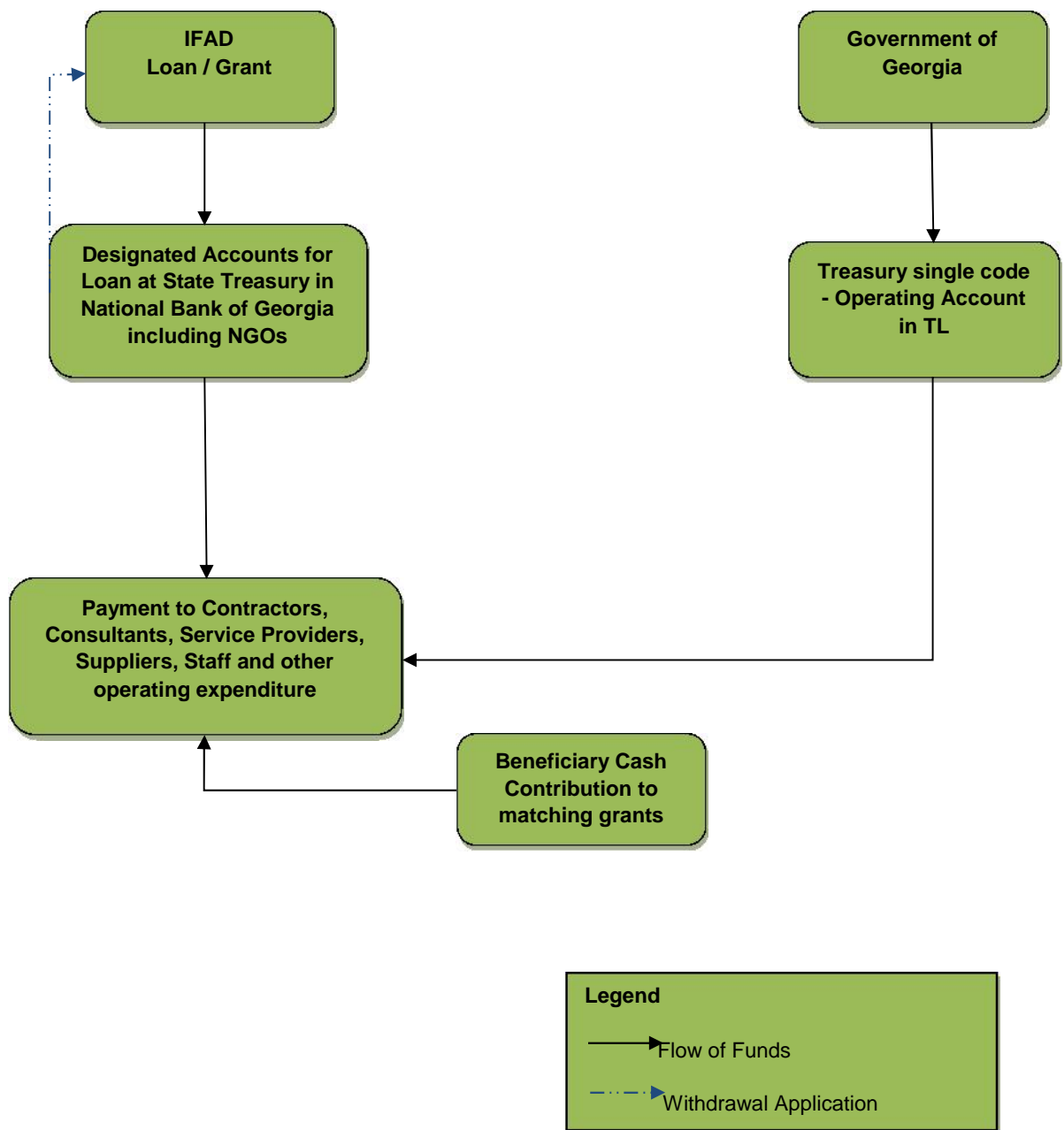
- Competitive recruitment of a competent and experienced Senior Finance Manager and development of job descriptions, annual targets, annual performance appraisal and increments.
- Procurement of an accounting system compliant with IFAD requirements and developed and supported by an established software company.
- Alignment of the process of budget preparation for the Government of Georgia and for IFAD (AWPB).
- Monthly & Quarterly Reports containing comparison of AWPB with Actuals per Components and per Categories
- Internal Audit of the programme to be conducted by the Internal Audit Department of the MEPA.
- External Audit of the programme to be conducted by the State Audit Office.
- Participation of Finance unit staff in workshops or training sessions organized by IFAD
- Follow-up on work performed and recommendations issued by the Internal Auditor and the external auditors.

38. The supervision process will be complemented by desk review of progress and financial reports, the programme's annual financial statements, internal audit reports, and annual audits.

39. **Implementation readiness.** The table below summarizes the actions to be taken in the area of financial management to mitigate FM risks and meet disbursement conditions:

No	Action	Responsible Party	Target Date / Covenants
1	Opening of designated account	GOG	Disbursement condition
2	Drafting of PIM	PMU	Disbursement condition
3	Recruitment of key programme personnel	GOG	Within 6 months of effectiveness
4	Installation of adequate accounting software	PMU	Condition for reimbursement of second WA
5	Obtaining IFAD FM e-learning certification by accounts staff	PMU	Within first year of programme

## Appendix 7.1. Flow of Funds



## Appendix 7. 2. Programme Control Risk – Summary

Description	Initial Risk Assessment	Proposed mitigation	Final Risk Assessment
<b>Inherent Risk</b>			
<b>1. Country Level</b> TI Index 5.7 (rank 44/176)	<b>M</b>		<b>M</b>
<b>2. Entity &amp; Programme Design</b>			
a. Implementation arrangements have changed in the past (ADPCC to IOPID) resulting in disruption to programme activities	<b>H</b>	<ul style="list-style-type: none"> <li>Any changes to the structure in the implementing agency should require agreement with IFAD.</li> </ul>	<b>M</b>
b. One component of the programme would be implemented by an NGO.	<b>M</b>	<ul style="list-style-type: none"> <li>Financial Management Assessment of NGO to be conducted.</li> <li>PIM to be developed by NGO and approved by IFAD.</li> <li>Supervision Missions to review NGO financial management.</li> <li>Funds to NGO subject to Internal Audit and External Audit</li> </ul>	<b>M</b>
<b>Control Risks</b>			
<b>1. Organization and Staffing</b>	<b>M</b>		<b>L</b>
a. The accountants working currently in IFAD programme (AMMAR) are experienced but have been working at the level of bookkeepers and not at the Finance Manager level, which involves planning, budgeting and management roles.		<ul style="list-style-type: none"> <li>Competitive recruitment of a competent and experienced Senior Finance Manager.</li> <li>Training on IFAD Financial Management guidelines and procedures.</li> <li>Programme Implementation Manual (PIM) and Finance and Administrative Manual to be developed.</li> <li>Support from IFAD FM team/consultants during the first year especially and during the programme generally.</li> <li>Computerized accounting system supported by an established IT company to be implemented.</li> <li>Development of Job Descriptions, annual targets, annual performance appraisal and increments.</li> </ul>	
<b>2. Budgeting</b>	<b>H</b>		<b>M</b>
a. Timely preparation and submission of AWPB.		<ul style="list-style-type: none"> <li>Training on IFAD policies and procedures to staff involved in budget preparation.</li> <li>Alignment of the process of budget preparation for the Government of Georgia and for IFAD purposes by the Programme.</li> <li>Implementation Support from IFAD.</li> </ul>	
b. Preparation of detailed and realistic budgets.		<ul style="list-style-type: none"> <li>Bottom up budget preparation approach to ensure realistic targets.</li> <li>Deliverables on previous budgets to be reviewed by the technical and financial teams.</li> <li>Monthly financial and physical progress report to be prepared, containing budget to actual comparison and corrective action.</li> <li>Quarterly interim financial reports including budget to actual comparisons with reasoning and to be discussed and corrective action and</li> </ul>	

		submitted to IFAD CPM. <ul style="list-style-type: none"> <li>Implementation Support from IFAD.</li> </ul>	
<b>3. Funds flow and Disbursement Arrangements</b>	<b>L</b>		<b>L</b>
No significant risk areas identified.			
<b>4. Internal Controls</b>	<b>L</b>		<b>L</b>
No significant risk areas identified.			
<b>5. Accounting Systems, Policies &amp; Procedures</b>	<b>M</b>		<b>L</b>
a. Accounting software has been developed and is being maintained by one individual and Technical & User Manuals are not available.		<ul style="list-style-type: none"> <li>Accounting Software need to be procured and implemented which is supported by an established software company.</li> <li>Training of Finance team on the accounting software to be procured.</li> <li>Finance &amp; Administrative manual to be developed.</li> </ul>	
<b>6. Reporting and Monitoring</b>	<b>M</b>		<b>L</b>
a. Monthly / Periodic Reports are not prepared comparing AWPB with Actuals per Components and per Categories.		<ul style="list-style-type: none"> <li>Monthly &amp; Quarterly Reports to be prepared containing comparison of AWPB with Actuals per Components and per Categories</li> <li>Training on IFAD Financial Management guidelines and procedures.</li> <li>Programme Implementation Manual (PIM) including financial, procurement and administrative procedures to be developed.</li> <li>Finance &amp; Administrative manual to be developed.</li> <li>Support from IFAD Country Office / FM team/consultant during the first year especially and during the programme generally.</li> </ul>	
<b>7. Internal Audit</b>	<b>H</b>		<b>M</b>
a. While internal audit department exists in the Ministry of Environmental Protection and Agriculture, it does not review IFAD funded projects.		<ul style="list-style-type: none"> <li>Involvement of Internal Audit Department to be ensured through stipulation in the Financing Agreement.</li> <li>Scope of Work / Terms of Reference / Deliverables / Reporting need to be discussed and agreed with the internal audit department</li> </ul>	
b. Understanding of the internal audit department regarding Donor funded projects and requirements may need to be developed.		<ul style="list-style-type: none"> <li>Scope of Work / Terms of Reference / Deliverables / Reporting need to be discussed and agreed.</li> <li>Capacity building / training of the internal audit department regarding IFAD funded projects, financing agreement, guidelines, PIM etc. needs to be developed.</li> <li>Regular communication between IFAD FM and Internal Audit Department.</li> </ul>	
<b>8. External Audit</b>	<b>M</b>		<b>L</b>
a. The external audit has not been conducted by the Supreme Audit Institution (State Audit Office) rather by a small private audit firm from Armenia.		<ul style="list-style-type: none"> <li>External Audit by State Audit Office (SAI) to be ensured through stipulation in the Financing Agreement.</li> <li>Scope of Work / Terms of Reference / Deliverables / Reporting need to be discussed and agreed with SAI.</li> <li>Capacity building / training of SAI regarding IFAD funded projects, financing agreement, guidelines, PIM etc. needs to be developed.</li> </ul>	

		• Regular communication between IFAD FM and SAI.	
<b>Programme Fiduciary Risk @ Design</b>	<b>M</b>		<b>L</b>

### Financial Management Performance Assessment at Design

<b>Country: GEORGIA</b>	<b>Loans/Grant ID:</b>
<b>Programme Name: Livestock Improvement in the Mountain Areas (DiMMA)</b>	
<b>Executing Agency: Ministry of Environmental Protection and Agriculture</b>	<b>CPM: Ms. Dina Saleh</b>
<b>Reviewing Finance Officer: Arsalan Vardag (FM Specialist)</b>	<b>Date of Review: 13 November 2017</b>

Topic	Rating (H/M/L)	Issues / Comments / Recommendations
<b>A. Inherent Risks: Rated at</b>	<b>M</b>	
<p>The inherent risk is the corruption perception index is rated medium at 5.7, which is among the most corruption free in the region. Georgia is currently ranking 44th out of 176 countries in the Transparency International Corruption Perception Index</p> <p>According to the last Public Expenditure and Financial Accountability (PEFA) assessment report (2013), Georgia has advanced significantly its budgetary and financial managements systems since the previous assessment Report of 2008. Updated PEFA assessment would be conducted in 2018 and it is expected that the PEFA assessment rating would improve further, due to continued reform process undertaken by the Government of Georgia.</p> <p>In the 2017 IFC/WB's Ease of Doing Business Report, Georgia is ranked 9th out of 189 countries. Previous IFAD and WB-funded projects have rated Financial Management performance by the Ministry of Environmental Protection and Agriculture implemented projects as Satisfactory.</p>		
<b>B. Control Risks: Rated at</b>	<b>M</b>	
Details are provided below under respective headings.		
<b>1. Organization and Staffing</b>		
a. Adequacy of organizational structure to meet functional needs of the programme.	M	Organogram not available. All team members are consultants and organisational structure has not been formalized. FM team is made of two experienced accountants who are employed by PMU on external consultancy agreements.
b. Availability of clear job description for key programme positions, including fiduciary positions.	M	Contracts & Job Descriptions are available in Georgian and not in English.
c. Adequacy of programme financial management staff (numbers and skill) matching functional needs of programme.	M	Both accountants are working on IFAD projects since a number of years and are well versed with treasury system. However, the accountants have been working at the level of bookkeepers and not at the Finance Manager level, which involves planning, budgeting and management roles. The existing accountants also need to do the IFAD Online FM course and participate in the IFAD FM Workshops.
d. Availability and adequacy of operating manuals and guidelines for staff.	M	A finance section is included in the PIM. However, Finance and Administration Manual has not been prepared. The programme refers to the manual used for the WB programme.

e.	Existence of a performance based evaluation system in place and timely completion of performance evaluation for all staff.	H	Performance evaluations are not conducted every year.
f.	Adequacy of health insurance coverage for all staff.	L	Not paid under consultancy contracts with PMU FM staff
g.	Timely payment of social security fees.	L	Not paid under consultancy contracts with PMU FM staff
h.	Staff adequately informed about IFAD's national and anti-corruption policy and relevant contact details.	H	Finance Manager and Accountant are not aware of IFAD anti-corruption policy and relevant details.
<b>2. Budgeting</b>			
a.	Timely preparation and approval of AWPB.	H	AWPB is prepared at the end of the year (Nov/Dec) and approved after the start of new year (Jan/Feb), while the Government Budget is prepared around July/August and approved by November. This creates a mismatch between Government Budget and AWPB. The programme team primarily looks at the Government budget as a disbursement target.
b.	AWPB in line with expenditure categories in Financing Agreement Schedule 2.	M	AWPB shows budgeted expenditures by components and categories. However, it is not prepared in detail i.e. line item basis showing activities, no of units and unit cost.
c.	Financing sources and implementing agencies for each category in the AWPB are identified.	L	Yes
d.	Linkage between AWPB and Procurement plan are identified (for cost estimate and activities). Check assumptions to support cost estimates. Test check high value items.	L	Yes
<b>3. Fund flows and Disbursements / Withdrawals</b>			
a.	Timeliness of funds disbursed by different sources (and co-financiers funding if applicable).	L	No delays experienced.
b.	Timeliness of counterpart funds disbursed.	L	No delays experienced
c.	Efficiency of the funding channels. Timeliness and traceability of funds flows.	L	Yes, all payments are easily traceable by PMU through the Georgian government treasury system and established interface protocols.
d.	Efficiency of the funding channels for Credit Lines. Timeliness and traceability of funds flows, if applicable.	L	NA
e.	Special Account(s)/Dedicated Account(s) Management, Disbursements.	L	
	i) Adequacy of the authorized allocation to ensure a smooth flow of funds	L	Yes
	ii) Appropriateness of disbursement methods used	L	Yes
	iii) Adequacy of documentary support for SOE disbursements, reimbursements, direct payments and Special Commitments. (refer to Appendix IV and complete, reflecting finding in rating).	L	Yes
	iv) Timely preparation and accuracy of Withdrawal Applications	L	Yes
	v) Authorization of WA preparation.	L	Yes
	vi) Status on expenditures withdrawn from Special Account but not yet claimed for replenishment (old cases to be noted)	L	No such case.



	vii) Regularity of Special Account(s) monitoring and monthly reconciliations signed by the programme manager. Review and assess the reconciliations	L	Yes. Reconciliations are verified on a daily basis
	viii) Disbursement rate compared to the AWPB and whether satisfactory given the remaining implementation time. Provide comments as appropriate	M	Disbursement rate is low.
	ix) Recovery of SA balances by loan closure	L	NA
<b>4.Internal Controls</b>			
a.	Segregation of duties - are the following functional responsibilities performed by different units or persons: (i) authorization of a transaction (ii) execution of a transaction (iii) recording of the transaction; and (iv) custody of assets involved in the transaction.	L	Yes. A 4-step transaction approval process has to be followed. Procurement officer files request, Accountant prepares payment order, which is verified and signed by Finance Manager and ultimately signed-off and stamped by Programme Manager. The payment order is then electronically submitted in the Treasury System. MEPA Deputy Minister authorizes transaction. After four years hard copies of payment orders and payment confirmations are sent to the MEPA archive
b.	Clarity and adequacy of decision processes and sequence of events for control functions in programme implementation reflected in the Financial Manual (or equivalent there-of).	L	In compliance with PIM and WB requirements. Detailed Finance and Administration Manual not prepared.
c.	Adherence to Programme Management manuals.	L	Confirmed
d.	Effectiveness and efficiency of internal controls over inflows of funding sources other than IFAD.	L	
e.	Adequacy of contract management (use of contracts register and monitoring form) and filing there-of.	L	Contract register and Contract Monitoring Forms are maintained
f.	Effectiveness and efficiency of internal controls over expenditures (full cycle from commitment, payment, receipt of goods and services, approval of payments, classification, etc.)	L	Confirmed
g.	Documentary evidence to confirm delivery and acceptance of contracted goods, works or services.	L	Confirmed for all accepted works by PMU
h.	Physical controls over cash, documents and records. Adequacy of filing systems. Is the petty cash subject to monthly reconciliation as well as surprise checks; custody of cash box and control of keys.	N/A	No cash payments involved
i.	Adequacy of physical management of cash.	NA	No cash payments involved
j.	Timely payment to suppliers and consultants.	L	Yes within 1-2 days
k.	Eligibility of expenditures with respect to Financing Agreements.	L	Yes
l.	Legality/eligibility of advances from programme funds and timely justification for use there-of.	L	Advances are up to 10-12% on Works and adjusted from invoices.
m.	Compliance with financial management covenants in the Financing Agreements and LTB.	L	Generally Complied. However, AWPB and PP are not provided 60 days before the end of the year.
n.	Adequacy of up-to-date record keeping for fixed assets and inventories.	L	All assets are booked on a dedicated AMMAR programme balance sheet at MEPA. Inventory checks are carried out by MEPA maintenance dept

o.	Adequacy of controls concerning programme assets including: i) Vehicle and other assets management (are assets property tagged, is a physical inventory count done on a regular basis?) ii) Fuel management (do drivers maintain a log book?) iii) Travel authorizations (incl. DSA paid to staff)	M	FM team are at present not involved in site-visits, however all payments to contractors are authorized by them upon submission of duly signed-off by Engineering dept supporting documents.
p.	Adequacy of vehicles and assets insurance.	L	Insured by MEPA after construction
q.	Workshops: i) Availability of list of participants ii) DSA paid to participants iii) Receipts for workshop expenditure	L	Confirmed
r.	Adequacy of controls and authorization process for use of funds (payments, transfers, Cash/Bank balance management) / and other operational accounts – non-special account.	L	All payments are processed in accordance with protocols used within the MoF Treasury system
s.	Banking arrangement and controls (reconciliation of bank statements with financial accounts).	L	As per Treasury system protocols
t.	Existence of a proper IT support unit in place.	L	Confirmed, maintained by MEPA.
<b>5. Accounting</b>			
a.	Basis of accounting (cash, accrual) and whether accounting standards are in line with IFAD requirements (e.g. IFRS/IPSAS/IPSAS cash).	L	Cash accounting, in accordance with IPSAS cash
b.	Adequacy and reliability of accounting system, (is double entry accounting used, specify software used, is budget data entered into the accounting system, can the accounting system produce regular automated financial reports?).	H	Accounting software created specifically to support IFAD and WB projects called "Cooper". Accounting software has been developed and is being maintained by one person who is more than 60 years of age, at least. Detailed Accounting Software Evaluation Questionnaire has been prepared and is attached.
b.	Recordkeeping (including documentation and filing/archiving)	L	Adequate
c.	Fixed assets register maintained and reconciled (sample and physical check).	NA	All assets are purchased on the MEPA book. No asset inventory run by PMU
d.	Adequate documentation and controls for Information Systems, including documented accounting procedures, backup of financial records, integration of all sub-systems.	L	Information systems are at the PPMD level. Daily backups on MEPA Servers
e.	Adequacy of chart of accounts for programme accounting purposes	L	Confirmed
f.	Timeliness of recording transactions, regularity of performance and approval of reconciliations, controls on erroneous recordings.	L	Automatic verifications within the accounting software
g.	Appropriate/ adequate accounting and reporting of counterpart funds contributions (incl. tax and tax exemptions) as well as beneficiary contributions.	L	Payment orders in consideration of government contributions are submitted by PMU FM simultaneously with payment orders from SAs and immediately registered in the PMU accounting system

<b>6. Financial Reporting &amp; Monitoring</b>			
a.	Completeness, accuracy, usefulness, and timeliness of financial reports.	H	<ul style="list-style-type: none"> <li>Regular Monthly Reports are not prepared.</li> <li>Reports do not compare IFAD FA Categories with Actuals.</li> <li>Reports do not compare AWPB with Actuals.</li> </ul>
b.	Interim FM reports and linkage to progress reports - timely preparation, submission to IFAD.	H	<ul style="list-style-type: none"> <li>Regular Monthly Reports are not prepared.</li> <li>Reports do not compare IFAD FA Categories with Actuals.</li> <li>Reports do not compare AWPB with Actuals.</li> </ul>
c.	Preparation of reports showing actual vs budget income/expenditure and AWPB execution rate.	M	This is a not automated function within the software, will be added soon
d.	Follow up of previous aide-memoirs fiduciary recommendations.	L	The majority of recommendations from 2016 SV mission have been addressed and PMU FM practices amended accordingly
e.	Reasonable alignment between disbursement rate of recurrent versus investment cost categories.	M	High rate of recurrent versus investment due to delays in programme implementation
<b>7. Internal Audit</b>			
a.	Existence of Internal Audit arrangements.	H	While internal audit function exists in the Ministry of Environmental Protection and Agriculture, it does not regularly review IFAD funded projects.
b.	Adequacy of internal audit arrangements (organization - staff capacity).	H	The internal audit department at the MEPA comprises of 4 team members headed by a Director. The capacity of the staff appears reasonable, however, understanding of funded projects, financing agreement, PIM etc. needs to be developed.
c.	Adequacy of internal audit scope of work and quality of reports.	H	Scope of Work / Terms of Reference need to be discussed and agreed.
d.	Assessment of matters raised in audit reports.	H	Currently IFAD funded projects have not been audited by Internal Audit Department of MEPA.
<b>8. External Audit</b>			
a.	Adequacy of scope and ToR.	H	The external audit has been conducted by a private audit firm from Armenia which is unusual. The Supreme Audit Institution (State Audit Office) has capacity to conduct audit of donor funded projects. The SAO has confirmed its willingness and ability to conduct audit as per IFAD's Guidelines for Programme Audit and provide audit reports in English language and also accepts public disclosure of audit reports.
b.	Adherence to ToR.	H	As above.
c.	Timeliness of audit report.	H	As above.
d.	Quality of audit.	H	As above.

## Summary of Programme Fiduciary Risk Assessment at Supervision

### Programme # Livestock Improvement in the Mountain Areas (DiMMA)

Implementing Agency : Ministry of Environmental Protection and Agriculture

	Risk Assessment H/M/L	Proposed Mitigation
<b>Inherent Risk</b>	<b>M</b>	
<b>Control Risks</b>	<b>M</b>	
1. Organization and Staffing	<b>M</b>	Hiring of a competent and experienced Finance Manager. Capacity Building of the existing accountants. Preparation of Finance & Administrative Manual.
2. Budgeting	<b>H</b>	Coordinated and matching budgeting for the Government budget and IFAD's AWPB. Preparation of detailed AWPB.
3. Funds flow & Disbursement Arrangements	<b>L</b>	
4. Internal Controls	<b>L</b>	
5. Accounting Systems, Policies and Procedures	<b>M</b>	Accounting Software need to be procured and implemented which is supported by an established software company.
6. Reporting and Monitoring	<b>M</b>	Monthly Reports should be prepared containing comparison of AWPB with Actuals per Components and per Categories.
7. Internal Audit	<b>H</b>	Internal Audit Department of the MEPA needs to conduct internal audit of IFAD funded projects after capacity building and agreeing on TORs with IFAD.
8. External Audit	<b>H</b>	The Supreme Audit Institution (State Audit Office) needs to conduct external audit of IFAD funded projects.
<b>Overall Programme Fiduciary Risk</b>	<b>M</b>	
H=High, M=Medium, L= Low		

#### Comments:

Competent/experienced Finance Manager and Accounting Software compliance with IFAD requirements supported by an established software company is essential. AWPB preparation needs to be in line and parallel to preparation of Government budget. Monthly reports containing comparison of AWPB with Actuals as per Components and as per Categories should be prepared. Internal Audit Department of the MEPA needs to conduct internal audit of IFAD funded projects after capacity building and agreeing on TORs with IFAD. The Supreme Audit Institution (State Audit Office) needs to conduct external audit of IFAD funded projects.

## Appendix 8: Procurement

### A. Assessment of the Georgian Public Procurement System

1. *Legal and institutional framework.* Public procurement in Georgia is regulated by the Law of Georgia on State Procurement that entered into force on 1 January 2006 and its subsequent amendments.

The regulatory framework is available at <http://procurement.gov.ge/ELibrary/LegalActs.aspx>. Procurement oversight is performed by the State Procurement Agency (SPA). SPA is an independent legal entity of public law (LEPL) in Georgia that provides oversight to ensure the legitimacy of government procurement procedures by establishing policies for the regulation of the procurement process. The main objectives of the SPA are: (a) supervision and monitoring of legality of state procurement procedures; (b) securing the principles of publicity, transparency, fairness and nondiscrimination when accomplishing state procurements, ensuring precise procedures and calculations as defined by law, fair competition as well as rational and free choice of participants in the state procurements; (c) support of operations of the unified electronic system for state procurement and increasing degree of trust of the society to it; and (d) improvement of legislation regulating competition and state procurement, ensuring its compliance with internationally recognized standards and best practice. The Georgian state procurement system has undergone significant reforms over the last years.

*Georgian e-Government Procurement system (Ge-GP).* On December 1<sup>st</sup> of 2010 when currently incumbent State Procurement System was established in Georgia, it inherited a heavy legacy in the form of previously existing tendering system, which due to lack of proper transparency had discriminatory approaches and facts of corruption, favoritism and other unhealthy practice. Accordingly, degree of trust of society towards the State Procurement System was low, compounded by limited information, high cost for participation in the tender and inadequacy of time requirements<sup>30</sup>. In December 2010, State Procurement Agency was assigned to create, introduce and run electronic system of state procurements. As a result, paper-based tenders were abolished, and 100 percent electronic tenders were introduced within a particularly short period of time. Former paper-based tenders were challenged by a high risk of corruption, restricted competition, high compliance costs and lack of transparency. Through the introduction of electronic procurement platform, the Georgian procurement system has become considerably more transparent and nondiscriminatory, encouraging free and fair competition and minimizing the risk of corruption. The Georgian economy is now one of the few economies in the world where paper-based tenders have been fully eliminated<sup>31</sup>. The electronic system contributes to the fight against corruption by offering a high degree of transparency in the state procurement process from initiation and planning to the point of award: (a) All procurement related information is open and available online (e.g. tender notices, tender documents, all decisions of tender commission, etc.). Price bids are also submitted through the Unified Electronic System as well as signed contracts; (b) The effectiveness of monitoring the public budgeting process is increased. Procuring entities are required to publish an approved annual procurement plan at the start of the fiscal year on the electronic platform; (c) All procurement related information is accessible even to unregistered guests (media or any other interested person) on the SPA website. Thus, the monitoring of the whole procurement process is not limited to public officials but can be carried out by visitors of the website as well; (d) Introduction of electronic services in the public procurement system is an important step towards useful e-Government services. The simplification of State procurement procedures, the minimization of the tender participation costs and elimination of geographical inequality resulted in increased competition and in significant reduction of government expenditures; and (e) Another decisive step in reducing the risk of corruption was the

---

<sup>30</sup> SPA 2016: Roadmap and Action Plan for the Implementation of the Public Procurement Chapter of the EU-Georgia Association Agreement

<sup>31</sup> Transparency International 2014.

establishment of a Dispute Resolution Board (DRB) by the State Procurement Agency (SPA) with representatives of civil society, which gives any company the chance to appeal a tender award.

*Assessment of the Georgian public procurement system by the International Donor Community*<sup>32</sup>. Achievements of Georgian e-Government Procurement System (Ge-GP) have been explicitly acknowledged by different international organizations: (\*) The Georgian e-Government Procurement System was awarded the second place among 471 candidates from 71 countries in the United Nations Public Service Annual Survey, Category: Preventing and Combating Corruption in the Public Service as the most prestigious international recognition in terms of public services around the world; (\*) in 2011, EBRD Assessment of Public Procurement Law and Practice stated that the key components of Public Procurement policy are introduced in South-European countries, however only Georgia has high Compliance rating, as Georgia has best complied with and implemented the efficient procurement instruments recommended by the international best practice; (\*) PMC Research Center stated that the e-Procurement system implemented in Georgia may serve as a good example for Asia and other Pacific countries; (\*) Report of the European Parliament Committee on International Trade 2011/2306(INI) stated that the European Parliament Welcomes Georgia's new procurement system, enabling e-auctions for all types of contracts, irrespective of their size or nature; points out that Georgia should also serve as an example for the EU Member States in this area; (\*) Transparency International (TI) stated in 2012 that Georgia moved from 68th to 51st place in Corruption Perception Index, what was greatly promoted by the Georgian e-Procurement system; (\*) According to EBRD 2012 Regional Public Procurement Legislation Self-Assessment, Georgia is on the 1<sup>st</sup> place amongst EBRD Regional 26 countries ; and (\*) Transparency International (TI) – Georgia stated in 2013 that Georgia's procurement system is state of the art and one of the most transparent and efficient systems in the world.

In 2012, the World Bank started an assessment of the Georgian e-procurement system in order to explore the possibility of using the same system for World Bank-financed projects. The assessment identified improvements and modifications required to make the e-procurement system meet the World Bank's requirements for the procurement of civil works and goods. SPA undertook these modifications and, after almost two years of extensive internal work and close cooperation with the government and the private sector, the World Bank started using Georgia's e-procurement system for the procurement of civil works with an estimated contract price below US\$ 10 million, as well as for the procurement of goods below an estimated contract price of US\$ 1 million, and also for procurement of simple goods and simple works following shopping procedures can be used in when the estimated contract price is below US\$100,000 and US\$ 200,000 equivalent respectively.

## B. Implementation Arrangements

---

### <sup>32</sup> References:

- IGI Global (2017), *Digital Governance and E-Government Principles Applied to Public Procurement*, by Rajesh Kumar, Shakya, World Bank,
- SPA. (2016), *Roadmap and Action Plan for the Implementation of the Public Procurement Chapter of the EU-Georgia Association Agreement*.
- EBRD. (2011), *Public Procurement Assessment Review of laws and practice in the EBRD region*. EBRD retrieved from <http://www.ebrd.com/downloads/legal/procurement/ppreport.pdf>
- EBRD. (2013), *Turning best practice into policy: public procurement reform agenda*. EBRD retrieved from <http://www.ebrd.com/documents/legal-reform/turning-best-practice-into-policy-public-procurement-reform-agenda.pdf>
- PMC, R.C. (2014). *Analysis of the State Procurement System of Georgia*. USAID Georgia retrieved from [http://csogeorgia.org/uploads/publications/121/PMCG\\_analysis\\_of\\_the\\_state\\_procurement\\_system\\_of\\_Georgia-eng.pdf](http://csogeorgia.org/uploads/publications/121/PMCG_analysis_of_the_state_procurement_system_of_Georgia-eng.pdf)
- TI. (2012). *Transparency International : Georgia 51<sup>st</sup> in 2012 Corruption Perceptions Index*.TI
- TI. (2013, June 14). Retrieved from <http://www.transparency.ge/en/node/3117>
- European Parliament (2012), *REPORT on the trade aspects of the Eastern Partnership (2011/2306(INI)); Committee on International Trade; Rapporteur: Miloslav Ransdorf* retrieved from <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A7-2012-0183+0+DOC+PDF+V0//EN>

*Procurement arrangements and capacity assessment.* The Georgian Ministry of Environmental Protection and Agriculture through its Department of External Relations (DER) will be responsible for all procurement functions under the programme. The DER staff has adequate experience to conduct procurement activities and is familiar with IFAD procurement guidelines and procedures as it has been involved in similar - completed RDPMHA<sup>33</sup>, RDP<sup>34</sup> and ASP<sup>35</sup>, and ongoing AMMAR<sup>36</sup> and ILMD<sup>37</sup> (World Bank-funded programme). Existing AMMAR and ILMD management Unit and its part-time procurement consultant have gained substantial knowledge and experience during the implementation of the above projects. Nevertheless, and to avoid impediments in programme implementation, the existing PMU will need to be strengthened with a full-time experienced procurement officer who shall be assigned to exercise overall management and review of DiMMA procurement related transactions.

*Procurement.* Procurement for the programme will be carried out according to the Georgian procurement regulations, provided that they are deemed to be consistent with IFAD's procurement guidelines. This is in line with the various commitments of the international donor community to work towards increasing the use of national systems where they can be shown to be compatible with the requirement of the donors. The following specific principles shall be observed while carrying out procurement:

- (a) Procurement will be carried out in accordance with Financing Agreement and any duly agreed amendments thereto;
- (b) Procurement will be conducted within the Programme implementation period, except as provided under Article 4.10(a)(ii) of IFAD General Conditions;
- (c) The cost of the procurement is not to exceed the availability of duly allocated funds as per the Financing Agreement;
- (d) Procurement is to be consistent with the duly approved Annual Work Plan and Budget (AWP/B) including a procurement plan for at least 18 months initially and subsequently, for 12 months; and
- (e) Procurement is to result in the best value for money.

The IFAD policy on preventing fraud and corruption in its activities and operations of June 2017 will be applied.

*Record Keeping.* The PMU will maintain complete records for each activity, which will include all procurement documents for each contract, including bidding documents, RFPs, advertisements, bids received, bid evaluations, no objections, letters of acceptance, contract agreements, bid securities, advance payment guarantees, performance securities, photocopies of invoices and payments, and related correspondence. Contract award information will be promptly recorded in the Register of Contracts. Records to be retained are detailed in *Module C: Correspondence and records management* of the IFAD Procurement Handbook.

*Register of Contracts.* Procurement carried out at programme level would be recorded and registered against the Procurement Plan. In addition, all contracts, with or without prior IFAD approval would be listed in the Register of Contracts maintained by the procuring entity with the dates of approval as provided by IFAD. When a contract is amended, the amendment would be recorded in the Register of Contracts. If a contract is cancelled or declared ineligible for financing by IFAD, this information would be written in the Register of Contracts. As this register facilitates the review and approval of payment requests on contracts, it is to be updated and submitted to the IFAD Country Programme Manager on a

---

<sup>33</sup> The Rural Development Programme for Mountainous and Highland Areas (RDPMHA)

<sup>34</sup> The Rural Development Project (RDP)

<sup>35</sup> The Agricultural Support Project (ASP),

<sup>36</sup> The Agricultural Modernization, Market Access and Resilience Project (AMMAR)

<sup>37</sup> The Irrigation and Land Market Development Project (ILMD)

quarterly basis. The sample form to be used and instructions are detailed in Annex 6 of IFAD's Loan Disbursement Handbook<sup>38</sup>.

*Procurement methods thresholds*<sup>39</sup>.

*Procurement of goods.* Goods estimated to cost US\$1 million equivalent and more will be procured through International Competitive Bidding (ICB). Goods, estimated to cost less than US\$1 million may be procured through National Competitive Bidding (NCB), and less than US\$100,000 through shopping (SH). (NCB and SH will be carried out using Georgian E-Government Procurement System since DiMMA will apply the same procurement standards and processes currently in use by the World Bank for ILMD. )

*Procurement of works.* Works contracts estimated to cost more than US\$10 million equivalent will be procured through ICB. Those estimated to cost US\$10 million or less may be procured through NCB, and less than US\$200,000 through shopping (SH). (NCB and SH will be carried out using Georgian E-Government Procurement System since DiMMA will apply the same procurement standards and processes currently in use by the World Bank for ILMD).

*Selection of consultants.* Consulting services will be procured using the World Bank's Standard Request for Proposals (RFP) (revised in October 2011). Consultant selection methods are described in the IFAD Procurement Handbook and will include Quality and Cost-Based Selections (QCBS), Quality-based Selection (QBS), Selection under a Fixed Budget (FBS), Selection Based on Consultants' Qualifications (CQS), Least-Cost Selection (LCS), Single-Source Selection (SSS) and Selection of Individual Consultants (IC). The latter method will require comparing at least three qualified and available candidates.

*Procurement involving community participation.* Given the size and nature of some DiMMA activities (such as improvement of pasture access, infrastructure, communities or informal groups may be brought together to act as implementing agencies to undertake programme procurement. "Community" refers to individuals or groups of programme beneficiaries, community groups with no legal status, associations or groups with legal status but with or without separate legal personality as a group, small-scale artisans and other small commercial organizations and guilds, and small local-level organizations that support and facilitate rural agricultural and social activities. The "community" in such cases may participate as procurement agent, implementing agency, or contractor and supplier of goods, works and related services for programme activities. The role of communities or groups would include: (a) Competitive contracting using any of the agreed procurement methods; and (b) Supervision of a contracted provider of works, goods or services. The extent to which community would be involved in procurement will be identified in the programme implementation manual (PIM), and clearly defined in the approved procurement plan. Where the programme's beneficiary community does not have adequate institutional capacity to receive and account for funds or administer procurement reliably, it may be necessary to introduce intermediaries to act on behalf of the community. Such intermediaries could be civil society organizations, cooperative societies, private entities or others. The programme management will ensure that such intermediaries have adequate capacity to perform such duties.

*Use of an Implementation Support NGO to assist the Programme Management Unit with programme implementation.* DiMMA programme design anticipates the selection of an Implementation Support NGO to assist the Programme Management Unit with the programme implementation, IFAD or other IFI/donor might provide a direct grant to the NGO as a recipient. The recipient shall use the grant to contribution to the programme implementation in accordance with the terms and conditions of an agreement with IFAD or other donor. In the case of IFAD, procurement of goods, works and services required for the programme shall be carried out in accordance with the Recipient's Procurement Procedures. Recipient's Procurement Procedures means the procedures to be used by the NGO for procurement related to the programme, which have been

---

<sup>38</sup> Available at:

[http://www.otelp.org/FW\\_SEPT\\_2012/Annex%206%20Contract%20Monitoring\\_Loan%20Disbursement%20Handbook%202011.pdf](http://www.otelp.org/FW_SEPT_2012/Annex%206%20Contract%20Monitoring_Loan%20Disbursement%20Handbook%202011.pdf)

<sup>39</sup> Aligned with the World Bank procurement thresholds for Georgia as advertised in the Bank Guidance Thresholds for procurement approaches and methods by country effective July 1, 2016 and retrieved at:

<https://policies.worldbank.org/sites/ppf3/PPFDocuments/Forms/DispPage.aspx?docid=5498e1a3-51d8-4568-bafc-c4c64134dd04&ver=current>



approved in advance by IFAD and which cannot be materially altered without the prior approval of IFAD. In all cases where procurement worth more than two hundred thousand US dollars (US\$ 200 000) is covered under the programme budget, the NGO shall be required to submit a procurement plan to IFAD.

*Matching grants.* Matching grant components (the DVCF) should have a specific matching grant manual setting out the process for grant application, evaluation, disbursement, and monitoring, and also including forms/templates to be used and dedicated sections for financial management and procurement. Where possible, simplified procurement rules should be used for the acquisition of goods and services under matching grants. The Agriculture Project Management Agency (APMA) may be contracted to administer the DiMMA matching grant funds.

*Bidding Documents.* Where ICB is being used, the World Bank Standard Bidding Documents and procedures, as set forth in their Procurement Guidelines, will apply in all cases. For NCB, the programme will use the latest Standard Bidding Documents (SBD) approved by IFAD in 2017 for use under AMMAR programme. A copy of the NCB/SBD will be annexed to the Programme Implementation Manual (PIM). Consulting services will be procured using the World Bank's Standard Request for Proposals (RFP) (revised in October 2011).

*Procurement prior review.* To ensure that the procurement process is carried out in conformity with these Guidelines and with the agreed procurement plan, IFAD will review arrangements for procurement of goods, works and services proposed by the Borrower/Recipient, including: (a) Contract packaging; (b) Applicable procedures and procurement methods; (c) Bidding documentation; (d) Composition of bid evaluation committees; (e) Bid evaluations and award recommendations; and (f) Draft contracts and contract amendments.

The following Prior Review thresholds are proposed:

- (a) All Work and Goods tenders under ICB;
- (b) The first 3 Work and Goods tenders under NCB;
- (c) Shopping documents, including specifications prior to initiation of procurement process for simple goods less than USD100,000 equivalent and works less than USD200,000 using government's e-procurement portal;
- (d) The solicitation and award of any contract for consulting firms estimated to cost USD 100,000 equivalent or more and all consulting services for individuals; and
- (e) Any direct contracting or single-source selection.

*Procurement post review.* The IFAD General Conditions for Agricultural Development Financing require that Borrower/recipients retain documents and records for review by IFAD at any time within a period of three (3) years after completion of the bid or contract by its consultants/auditors. The documentation would include, but not be limited to, the signed original of the contract and all subsequent amendments or addenda, the bids, the bid evaluation report and the recommendation for award, the payment invoices or certificates, as well as the certificates for inspection, delivery, completion and acceptance of goods, works, and consulting services, for examination by the IFAD or by its consultants/auditors.

### **C. Governance**

With regards to governance improvement, Georgia has embarked on a series of in-depth reforms concerning public sector management, access to information and the fight against corruption. The Legal framework governing public procurement was further amended, Electronic Government Procurement (E-GP) introduced in 2010, and linked to the Treasury's information system thus providing for full information sharing. Through the introduction of electronic procurement platform, the Georgian procurement system has become considerably more transparent and nondiscriminatory, encouraging free and fair competition and minimizing the risk of corruption. On the Transparency International 2015 Corruption Perception Index, Georgia ranks as number 48 out of 168 countries, which is considered to be the best indicator in post-Soviet countries (Baltic States excluded).



## Appendix 9: Programme cost and financing

### Appendix 9: Programme cost and financing

#### 1. Introduction

2. This appendix covers the programme costs and financing plan, while it also describes the assumptions underlying them and sets out the basis and details of the estimated programme costs.

#### Main assumptions

3. DiMMA will be implemented over a 6-year period and will operate over two IFAD funding cycles. The overall programme cost for the full 6 years is estimated at EUR 46.9 million of which EUR 16 million is allocated from the first funding cycle. Additional financing from the second funding cycle is estimated at EUR 5.46 million, subject to confirmation and commitment by both IFAD and relevant GoG authorities. The financing gap may be sourced by subsequent IFAD lending cycles (according to the performance based allocation system) under financing terms to be determined and subject to internal procedures and subsequent IFAD Executive Board approval. Co-financing is expected from the Adaptation Fund, EUR 3.7 million, and I-NGOs, EUR 2.13 million<sup>40</sup>. Beneficiaries are expected to provide in cash contribution of EUR 9.96 million and the Government in-kind contribution is estimated at EUR 9.63 million. Costs have been estimated on the basis of prices prevailing during programme design in March 2018.

4. **Physical and price contingencies.** A physical contingency of 5% has been applied to civil works to take into account the uncertainty on the exact implementation quantities while price contingencies have been applied on all costs, with the exception of credit lines.

5. **Inflation.** For the purpose of this analysis, the average annual local inflation rate has been set at 3.6%. This value has been chosen based on the analysis conducted in the latest report of the Economist Intelligence Unit (EIU), which estimates that between 2018 and 2022 the inflation should never exceed 3.9%. For foreign inflation, an average inflation of 1.7% has been retained<sup>41</sup>.

6. **Exchange rate.** Taking into account exchange rate fluctuations estimates forecasted by the EIU, this analysis has adopted an average exchange rate of GEL 3.1: €1.

7. **Taxes and duties.** Part of the Government contribution will be the exemptions from taxes and duties on all programme inputs that involve funding from IFAD loans. The estimate of taxes and duties was based on the rates in effect prevailing at the time of the design. In conformity with the principle that no taxes or duties will be financed out of the proceeds of the IFAD loan/grant, any future changes in tax legislation will have to apply to the programme.

8. The items to be imported for the programme attract import and excise duties of varying proportions, and a value-added tax (VAT) of 18% is levied on all imported goods.

#### Programme costs

9. The total programme costs including physical and price contingencies are estimated at EUR 46.9 million over 6 years implementation period. Programme costs by components are summarized in Table 1, while a complete set of programme summary tables and detailed costs tables are presented in Attachments 1 and 2 of this annex.

10. **Programme costs by components.** Programme investments are organized in three main components: (i) Value Chain Development (82.5% per cent of the costs); (ii) Institutional and Organizational Development (11.9% of the costs); and (iii) Programme management and community mobilization (5.6% of the costs). A summary breakdown of the programme costs by components is shown below.

---

<sup>40</sup> To be confirmed.

<sup>41</sup> Georgia Country Report, Economist Intelligence Unit, February 2018.

**Table 1: Programme costs by component**

		Georgia Dairy Modernisation and Market Access (DiMMA) Programme Components Project Cost Summary							
		(GEL Million)				(EUR '000)			
				%	% Total				
				Foreign	Base				
		Local	Foreign	Total	Exchange	Costs	Local	Foreign	Total
<b>A. Value Chain Development</b>									
1. Innovations, demonstrations and capacity building		17	2	19	8	14	5 789	527	6 317
2. Supporting investments and strengthening stakeholders' linkages to value chain		82	13	95	14	69	27 358	4 405	31 763
<b>Subtotal</b>		99	15	114	13	83	33 147	4 933	38 080
<b>B. Institutional and Organizational Development</b>									
1. Community mobilisation and stakeholders' organisation		12	3	15	20	11	4 068	999	5 067
2. Policy dialogue		0	0	1	20	-	164	41	205
<b>Subtotal</b>		13	3	16	20	12	4 232	1 040	5 272
<b>C. Project Management (PMU)</b>									
1. Know ledge Management, Planning and M&E		0	0	1	30	-	157	67	225
2. Project coordination		6	0	7	7	5	2 094	151	2 245
<b>Subtotal</b>		7	1	7	9	5	2 251	218	2 470
<b>Total BASELINE COSTS</b>									
		119	19	137	14	100	39 630	6 191	45 821
Physical Contingencies		0	1	1	70	1	89	210	299
Price Contingencies		3	2	5	33	4	522	257	779
<b>Total PROJECT COSTS</b>		122	21	143	15	104	40 242	6 658	46 900

11. **Programme financing.** The total programme costs of EUR 46.9 million will be financed by the first PBAS IFAD loan of EUR 16 million<sup>42</sup> and, subject to availability and agreement with the GoG, by a second PBAS IFAD loan of approximately EUR 5.43 million. A grant of EUR 3.7<sup>43</sup> million (USD 4.5 million) from the Adaptation Fund will be used to finance adaptive climate change activities, such as collective pasture management demonstrations or non-extractive livelihoods grants that will be used to enhance the adaptation of the most vulnerable people, especially youth and women. NGOs' co-financing is estimated at EUR 2.13 million, mainly contributing toward capacity building activities across the different components. Beneficiaries are also expected to provide an in cash contribution of EUR 9.96 million to the DVCF seed financing matching grants (please see appendix 4 for additional information on the beneficiaries contribution by activity). Government in-kind contribution of EUR 9. 631 million, over two funding cycles, is expected in the form of exemption of taxes and duties, provision of facilities (i.e. PMU office space and furniture, including utilities and other office related costs) infrastructure/roads rehabilitation, and support to cooperatives development in the programme area. The proposed financing plan is summarized below.

**Table 2: Programme financing**

		Georgia Dairy Modernisation and Market Access (DiMMA) Programme Components by Financiers (EUR '000)													
		GoG		IFAD LOAN 1		Adaptation Fund		Beneficiaries in cash		IFAD LOAN 2		NGO		Total	
		Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
<b>A. Value Chain Development</b>															
1. Innovations, demonstrations and capacity building		549	8.5	3 334	51.7	1 209	18.7	732	11.4	160	2.5	465	7.2	6 449	13.8
2. Supporting investments and strengthening stakeholders' linkages to value chain		7 565	23.5	8 682	26.9	1 891	5.9	9 232	28.6	4 816	14.9	58	0.2	32 245	68.8
<b>Subtotal</b>		8 114	21.0	12 017	31.1	3 100	8.0	9 964	25.8	4 976	12.9	523	1.4	38 694	82.5
<b>B. Institutional and Organizational Development</b>															
1. Community mobilisation and stakeholders' organisation		949	17.7	2 006	37.3	474	8.8	-	-	332	6.2	1 614	30.0	5 374	11.5
2. Policy dialogue		41	18.0	77	33.7	-	-	-	-	110	48.3	-	-	228	0.5
<b>Subtotal</b>		990	17.7	2 083	37.2	474	8.5	-	-	442	7.9	1 614	28.8	5 602	11.9
<b>C. Project Management (PMU)</b>															
1. Know ledge Management, Planning and M&E		23	10.0	211	90.0	-	-	-	-	-	-	-	-	234	0.5
2. Project coordination		506	21.4	1 689	71.3	126	5.3	-	-	48	2.0	-	-	2 369	5.1
<b>Subtotal</b>		529	20.3	1 900	73.0	126	4.8	-	-	48	1.8	-	-	2 604	5.6
<b>Total PROJECT COSTS</b>		9 633	20.5	16 000	34.1	3 700	7.9	9 964	21.2	5 466	11.7	2 137	4.6	46 900	100.0

**Expenditure and disbursement accounts.** The programme will be rolled out through the Central Programme Management Unit - which will manage and coordinate the flow of funds and the expenditures

<sup>42</sup> Amount subject to EUR/USD exchange rate fluctuation.

<sup>43</sup> Ibid.

incurred on account of the programme activities. Financial management and procurement procedures are described in Appendices 7 and 8. A summary of the total costs by expenditure accounts per year is shown in Table 3 and a summary of the total costs by disbursement accounts and financier is presented below.

**Table 3: Expenditure accounts by financier**

Georgia Dairy Modernisation and Market Access (DiMMA) Programme Expenditure Accounts by Financiers (EUR '000)														
	GoG		IFAD LOAN 1		Adaptation Fund		Beneficiaries in cash		IFAD LOAN 2		NGO		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
<b>I. Investment Costs</b>														
A. Works	5 454	100.0	-	-	-	-	-	-	-	-	-	-	-	5 454 11.6
B. Equipment & Goods /a	2 334	63.8	706	19.3	511	14.0	-	-	106	2.9	-	-	-	3 658 7.8
C. Consultancies /b	693	16.8	2 031	49.3	441	10.7	-	-	143	3.5	812	19.7	19.7	4 120 8.8
D. Trainings /c	721	17.7	1 125	27.7	403	9.9	-	-	492	12.1	1 325	32.6	32.6	4 065 8.7
E. Grant /d	-	-	10 610	38.5	2 291	8.3	9 964	36.2	4 677	17.0	-	-	-	27 542 58.7
<b>Total Investment Costs</b>	<b>9 202</b>	<b>20.5</b>	<b>14 472</b>	<b>32.3</b>	<b>3 646</b>	<b>8.1</b>	<b>9 964</b>	<b>22.2</b>	<b>5 418</b>	<b>12.1</b>	<b>2 137</b>	<b>4.8</b>	<b>44 839</b>	<b>95.6</b>
<b>II. Recurrent Costs</b>														
A. Operating Costs	431	66.5	170	26.2	-	-	-	-	48	7.4	-	-	-	648 1.4
B. Salaries and allowances	-	-	1 358	96.2	54	3.8	-	-	-	-	-	-	-	1 412 3.0
<b>Total Recurrent Costs</b>	<b>431</b>	<b>20.9</b>	<b>1 528</b>	<b>74.1</b>	<b>54</b>	<b>2.6</b>	<b>-</b>	<b>-</b>	<b>48</b>	<b>2.3</b>	<b>-</b>	<b>-</b>	<b>2 060</b>	<b>4.4</b>
<b>Total PROJECT COSTS</b>	<b>9 633</b>	<b>20.5</b>	<b>16 000</b>	<b>34.1</b>	<b>3 700</b>	<b>7.9</b>	<b>9 964</b>	<b>21.2</b>	<b>5 466</b>	<b>11.7</b>	<b>2 137</b>	<b>4.6</b>	<b>46 900</b>	<b>100.0</b>

/a It includes vehicles, goods and services

/b It includes studies & technical assistance

/c It includes workshops and meetings

/d Matching grants

**Table 4: Disbursement accounts by financier**

Georgia Dairy Modernisation and Market Access (DiMMA) Programme Disbursement Accounts by Financiers (EUR '000)														
	GoG		IFAD LOAN 1		Adaptation Fund		Beneficiaries in cash		IFAD LOAN 2		NGO		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1. Works	5 454	100.0	-	-	-	-	-	-	-	-	-	-	-	5 454 11.6
2. Equipment & Goods /a	2 334	63.8	706	19.3	511	14.0	-	-	106	2.9	-	-	-	3 658 7.8
3. Consultancies /b	693	16.8	2 031	49.3	441	10.7	-	-	143	3.5	812	19.7	19.7	4 120 8.8
4. Trainings /c	721	17.7	1 125	27.7	403	9.9	-	-	492	12.1	1 325	32.6	32.6	4 065 8.7
5. Operating Costs	431	66.5	170	26.2	-	-	-	-	48	7.4	-	-	-	648 1.4
6. Salaries and Allowances	-	-	1 358	96.2	54	3.8	-	-	-	-	-	-	-	1 412 3.0
7. Grant	-	-	10 610	38.5	2 291	8.3	9 964	36.2	4 677	17.0	-	-	-	27 542 58.7
<b>Total PROJECT COSTS</b>	<b>9 633</b>	<b>20.5</b>	<b>16 000</b>	<b>34.1</b>	<b>3 700</b>	<b>7.9</b>	<b>9 964</b>	<b>21.2</b>	<b>5 466</b>	<b>11.7</b>	<b>2 137</b>	<b>4.6</b>	<b>46 900</b>	<b>100.0</b>

/a It includes vehicles, goods and services

/b It includes studies and technical assistance

/c It includes workshops and meetings

**Attachment 9.1: Summary cost and financing tables (EUR)**

Table	Description
1	Components by Financier
2	Expenditure Accounts by Financier
3	Expenditure Accounts by Components - Base Costs
4	Expenditure Accounts by Components - Totals Including Contingencies
5	Components Programme Cost Summary
6	Expenditure Accounts Programme Cost Summary
7	Programme Components by Year -- Base Costs
8	Programme Components by Year -- Totals Including Contingencies
9	Expenditure Accounts by Years -- Base Costs
10	Expenditure Accounts by Years -- Totals Including Contingencies
11	Disbursement Accounts by Financiers
12	Disbursements by Semesters and Government Cash Flow

Georgia  
Dairy Modernisation and Market Access (DIMMA) Programme  
**Components by Financiers**  
(EUR '000)

	GoG		IFAD LOAN 1		Adaptation Fund		Beneficiaries in cash		IFAD LOAN 2		NGO		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
<b>A. Value Chain Development</b>														
1. Innovations, demonstrations and capacity building	549	8.5	3 334	51.7	1 209	18.7	732	11.4	160	2.5	465	7.2	6 449	13.8
2. Supporting investments and strengthening stakeholders' linkages to value chain	7 565	23.5	8 682	26.9	1 891	5.9	9 232	28.6	4 816	14.9	58	0.2	32 245	68.8
<b>Subtotal</b>	<b>8 114</b>	<b>21.0</b>	<b>12 017</b>	<b>31.1</b>	<b>3 100</b>	<b>8.0</b>	<b>9 964</b>	<b>25.8</b>	<b>4 976</b>	<b>12.9</b>	<b>523</b>	<b>1.4</b>	<b>38 694</b>	<b>82.5</b>
<b>B. Institutional and Organizational Development</b>														
1. Community mobilisation and stakeholders' organisation	949	17.7	2 006	37.3	474	8.8	-	-	332	6.2	1 614	30.0	5 374	11.5
2. Policy dialogue	41	18.0	77	33.7	-	-	-	-	110	48.3	-	-	228	0.5
<b>Subtotal</b>	<b>990</b>	<b>17.7</b>	<b>2 083</b>	<b>37.2</b>	<b>474</b>	<b>8.5</b>	<b>-</b>	<b>-</b>	<b>442</b>	<b>7.9</b>	<b>1 614</b>	<b>28.8</b>	<b>5 602</b>	<b>11.9</b>
<b>C. Project Management (PMU)</b>														
1. Knowledge Management, Planning and M&E	23	10.0	211	90.0	-	-	-	-	-	-	-	-	234	0.5
2. Project coordination	506	21.4	1 689	71.3	126	5.3	-	-	48	2.0	-	-	2 369	5.1
<b>Subtotal</b>	<b>529</b>	<b>20.3</b>	<b>1 900</b>	<b>73.0</b>	<b>126</b>	<b>4.8</b>	<b>-</b>	<b>-</b>	<b>48</b>	<b>1.8</b>	<b>-</b>	<b>-</b>	<b>2 604</b>	<b>5.6</b>
<b>Total PROJECT COSTS</b>	<b>9 633</b>	<b>20.5</b>	<b>16 000</b>	<b>34.1</b>	<b>3 700</b>	<b>7.9</b>	<b>9 964</b>	<b>21.2</b>	<b>5 466</b>	<b>11.7</b>	<b>2 137</b>	<b>4.6</b>	<b>46 900</b>	<b>100.0</b>

Georgia  
Dairy Modernisation and Market Access (DiMMA) Programme  
**Expenditure Accounts by Financiers**  
(EUR '000)

	GoG		IFAD LOAN 1		Adaptation Fund		Beneficiaries in cash		IFAD LOAN 2		NGO		Total		
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	
<b>I. Investment Costs</b>															
A. Works	5 454	100.0	-	-	-	-	-	-	-	-	-	-	-	5 454	11.6
B. Equipment & Goods /a	2 334	63.8	706	19.3	511	14.0	-	-	106	2.9	-	-	-	3 658	7.8
C. Consultancies /b	693	16.8	2 031	49.3	441	10.7	-	-	143	3.5	812	19.7	-	4 120	8.8
D. Trainings /c	721	17.7	1 125	27.7	403	9.9	-	-	492	12.1	1 325	32.6	-	4 065	8.7
E. Grant /d	-	-	10 610	38.5	2 291	8.3	9 964	36.2	4 677	17.0	-	-	-	27 542	58.7
<b>Total Investment Costs</b>	<b>9 202</b>	<b>20.5</b>	<b>14 472</b>	<b>32.3</b>	<b>3 646</b>	<b>8.1</b>	<b>9 964</b>	<b>22.2</b>	<b>5 418</b>	<b>12.1</b>	<b>2 137</b>	<b>4.8</b>	<b>44 839</b>	<b>95.6</b>	
<b>II. Recurrent Costs</b>															
A. Operating Costs	431	66.5	170	26.2	-	-	-	-	48	7.4	-	-	-	648	1.4
B. Salaries and allowances	-	-	1 358	96.2	54	3.8	-	-	-	-	-	-	-	1 412	3.0
<b>Total Recurrent Costs</b>	<b>431</b>	<b>20.9</b>	<b>1 528</b>	<b>74.1</b>	<b>54</b>	<b>2.6</b>	<b>-</b>	<b>-</b>	<b>48</b>	<b>2.3</b>	<b>-</b>	<b>-</b>	<b>2 060</b>	<b>4.4</b>	
<b>Total PROJECT COSTS</b>	<b>9 633</b>	<b>20.5</b>	<b>16 000</b>	<b>34.1</b>	<b>3 700</b>	<b>7.9</b>	<b>9 964</b>	<b>21.2</b>	<b>5 466</b>	<b>11.7</b>	<b>2 137</b>	<b>4.6</b>	<b>46 900</b>	<b>100.0</b>	

/a It includes vehicles, goods and services  
/b It includes studies & technical assistance  
/c It includes workshops and meetings  
/d Matching grants



Georgia  
Dairy Modernisation and Market Access (DiMMA) Programme  
**Expenditure Accounts by Components - Base Costs**  
(EUR '000)

	<b>Value Chain Development</b>		<b>Institutional and Organizational Development</b>		<b>Project Management (PMU)</b>		<b>Co-Total</b>
	<b>Innovations, demonstrations and capacity building</b>	<b>Supporting investments and strengthening stakeholders' linkages to value chain</b>	<b>Community mobilisation and stakeholders' organisation</b>	<b>Policy dialogue</b>	<b>Knowledge Management, Planning and M&amp;E</b>	<b>Project coordination</b>	
<b>I. Investment Costs</b>							
A. Works	-	5 000	-	-	-	-	5 000
B. Equipment & Goods /a	1 121	2 380	-	-	-	102	3 603
C. Consultancies /b	-	75	3 175	205	225	189	3 868
D. Trainings /c	1 796	166	1 892	-	-	6	3 860
E. Grant /d	3 400	24 142	-	-	-	-	27 542
<b>Total Investment Costs</b>	<b>6 317</b>	<b>31 763</b>	<b>5 067</b>	<b>205</b>	<b>225</b>	<b>297</b>	<b>43 873</b>
<b>II. Recurrent Costs</b>							
A. Operating Costs	-	-	-	-	-	615	615
B. Salaries and allowances	-	-	-	-	-	1 333	1 333
<b>Total Recurrent Costs</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1 948</b>	<b>1 948</b>
<b>Total BASELINE COSTS</b>	<b>6 317</b>	<b>31 763</b>	<b>5 067</b>	<b>205</b>	<b>225</b>	<b>2 245</b>	<b>45 821</b>
Physical Contingencies	-	250	39	10	-	0	299
<b>Price Contingencies</b>							
<b>Inflation</b>							
Local	221	94	444	20	14	247	1 040
Foreign	25	168	53	2	3	7	257
<b>Subtotal Inflation</b>	<b>245</b>	<b>262</b>	<b>496</b>	<b>23</b>	<b>17</b>	<b>254</b>	<b>1 297</b>
Devaluation	-113	-30	-227	-10	-7	-130	-518
Subtotal Price Contingencies	132	232	269	12	10	124	779
<b>Total PROJECT COSTS</b>	<b>6 449</b>	<b>32 245</b>	<b>5 374</b>	<b>228</b>	<b>234</b>	<b>2 369</b>	<b>46 900</b>
Taxes	549	1 099	953	41	23	148	2 813
Foreign Exchange	552	4 773	1 059	46	70	158	6 658

a It includes vehicles, goods and services  
b It includes studies & technical assistance  
c It includes workshops and meetings  
d Matching grants

Georgia  
Dairy Modernisation and Market Access (DiMMA) Programme  
**Expenditure Accounts by Components - Totals Including Contingencies**  
(EUR '000)

	<u>Value Chain Development</u>		<u>Institutional and Organizational Development</u>		<u>Project Management (PMU)</u>			<u>Total</u>
	<u>Innovations, demonstrations and capacity building</u>	<u>Supporting investments and strengthening stakeholders' linkages to value chain</u>	<u>Community mobilisation and stakeholders' organisation</u>	<u>Policy dialogue</u>	<u>Knowledge Management, Planning and M&amp;E</u>	<u>Project coordination</u>		
<b>I. Investment Costs</b>								
A. Works	-	5 454	-	-	-	-	-	5 454
B. Equipment & Goods /a	1 159	2 396	-	-	-	-	103	3 658
C. Consultancies /b	-	79	3 380	228	234	200	4 120	
D. Trainings /c	1 890	174	1 995	-	-	6	4 065	
E. Grant /d	3 400	24 142	-	-	-	-	27 542	
<b>Total Investment Costs</b>	<b>6 449</b>	<b>32 245</b>	<b>5 374</b>	<b>228</b>	<b>234</b>	<b>309</b>	<b>44 839</b>	
<b>II. Recurrent Costs</b>								
A. Operating Costs	-	-	-	-	-	648	648	
B. Salaries and allowances	-	-	-	-	-	1 412	1 412	
<b>Total Recurrent Costs</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2 060</b>	<b>2 060</b>	
<b>Total PROJECT COSTS</b>	<b>6 449</b>	<b>32 245</b>	<b>5 374</b>	<b>228</b>	<b>234</b>	<b>2 369</b>	<b>46 900</b>	
Taxes	549	1 099	953	41	23	148	2 813	
Foreign Exchange	552	4 773	1 059	46	70	158	6 658	

a It includes vehicles, goods and services

b It includes studies & technical assistance

c It includes workshops and meetings

d Matching grants

Georgia  
Dairy Modernisation and Market Access (DiMMA) Programme  
**Components Project Cost Summary**

	(GEL Million)					(EUR '000)		
	Local	Foreign	Total	%	% Total	Local	Foreign	Total
				Foreign Exchange	Base Costs			
<b>A. Value Chain Development</b>								
1. Innovations, demonstrations and capacity building	17	2	19	8	14	5 789	527	6 317
2. Supporting investments and strengthening stakeholders' linkages to value chain	82	13	95	14	69	27 358	4 405	31 763
<b>Subtotal</b>	99	15	114	13	83	33 147	4 933	38 080
<b>B. Institutional and Organizational Development</b>								
1. Community mobilisation and stakeholders' organisation	12	3	15	20	11	4 068	999	5 067
2. Policy dialogue	0	0	1	20	-	164	41	205
<b>Subtotal</b>	13	3	16	20	12	4 232	1 040	5 272
<b>C. Project Management (PMU)</b>								
1. Knowledge Management, Planning and M&E	0	0	1	30	-	157	67	225
2. Project coordination	6	0	7	7	5	2 094	151	2 245
<b>Subtotal</b>	7	1	7	9	5	2 251	218	2 470
<b>Total BASELINE COSTS</b>	119	19	137	14	100	39 630	6 191	45 821
Physical Contingencies	0	1	1	70	1	89	210	299
Price Contingencies	3	2	5	33	4	522	257	779
<b>Total PROJECT COSTS</b>	122	21	143	15	104	40 242	6 658	46 900

Georgia  
Dairy Modernisation and Market Access (DiMMA) Programme  
**Expenditure Accounts Project Cost Summary**

	(GEL Million)					(EUR '000)			
	Local	Foreign	Total	%	% Total	Local	Foreign	Total	%
				Exchange	Base				Exchange
<b>I. Investment Costs</b>									
A. Works	3	12	15	80	11	1 000	4 000	5 000	80
B. Equipment & Goods /a	9	2	11	15	8	3 047	556	3 603	15
C. Consultancies /b	9	2	12	21	8	3 068	801	3 868	21
D. Trainings /c	9	2	12	20	8	3 088	773	3 860	20
E. Grant /d	83	-	83	-	60	27 542	-	27 542	-
<b>Total Investment Costs</b>	113	18	132	14	96	37 744	6 129	43 873	14
<b>II. Recurrent Costs</b>									
A. Operating Costs	2	0	2	10	1	553	61	615	10
B. Salaries and allowances	4	-	4	-	3	1 333	-	1 333	-
<b>Total Recurrent Costs</b>	6	0	6	3	4	1 886	61	1 948	3
<b>Total BASELINE COSTS</b>	119	19	137	14	100	39 630	6 191	45 821	14
Physical Contingencies	0	1	1	70	1	89	210	299	70
Price Contingencies	3	2	5	33	4	522	257	779	33
<b>Total PROJECT COSTS</b>	122	21	143	15	104	40 242	6 658	46 900	14

/a It includes vehicles, goods and services

/b It includes studies & technical assistance

/c It includes workshops and meetings

/d Matching grants

Georgia  
Dairy Modernisation and Market Access (DiMMA) Programme  
**Project Components by Year -- Base Costs**  
(EUR '000)

	<b>Base Cost</b>						<b>Total</b>
	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	
<b>A. Value Chain Development</b>							
1. Innovations, demonstrations and capacity building	1 373	2 798	961	611	471	102	6 317
2. Supporting investments and strengthening stakeholders' linkages to value chain	1 465	8 941	8 200	7 968	4 856	331	31 763
<b>Subtotal</b>	<b>2 838</b>	<b>11 740</b>	<b>9 162</b>	<b>8 579</b>	<b>5 328</b>	<b>433</b>	<b>38 080</b>
<b>B. Institutional and Organizational Development</b>							
1. Community mobilisation and stakeholders' organisation	471	961	1 132	989	969	545	5 067
2. Policy dialogue	-	33	53	53	53	13	205
<b>Subtotal</b>	<b>471</b>	<b>994</b>	<b>1 185</b>	<b>1 042</b>	<b>1 022</b>	<b>558</b>	<b>5 272</b>
<b>C. Project Management (PMU)</b>							
1. Knowledge Management, Planning and M&E	85	8	58	8	8	58	225
2. Project coordination	220	413	413	402	402	396	2 245
<b>Subtotal</b>	<b>305</b>	<b>421</b>	<b>471</b>	<b>410</b>	<b>410</b>	<b>454</b>	<b>2 470</b>
<b>Total BASELINE COSTS</b>	<b>3 614</b>	<b>13 154</b>	<b>10 817</b>	<b>10 031</b>	<b>6 759</b>	<b>1 445</b>	<b>45 821</b>
Physical Contingencies	4	134	76	72	9	4	299
<b>Price Contingencies</b>							
<b>Inflation</b>							
Local	16	118	191	240	269	207	1 040
Foreign	2	64	63	85	25	18	257
<b>Subtotal Inflation</b>	<b>17</b>	<b>182</b>	<b>254</b>	<b>325</b>	<b>294</b>	<b>225</b>	<b>1 297</b>
Devaluation	-8	-54	-92	-116	-139	-109	-518
Subtotal Price Contingencies	9	128	162	209	155	117	779
<b>Total PROJECT COSTS</b>	<b>3 628</b>	<b>13 417</b>	<b>11 055</b>	<b>10 312</b>	<b>6 923</b>	<b>1 566</b>	<b>46 900</b>
Taxes	199	873	645	597	322	177	2 813
Foreign Exchange	385	2 708	1 528	1 484	348	204	6 658

Georgia  
Dairy Modernisation and Market Access (DiMMA) Programme  
**Project Components by Year -- Totals Including Contingencies**  
(EUR '000)

	<b>Totals Including Contingencies</b>						
	2019	2020	2021	2022	2023	2024	Total
<b>A. Value Chain Development</b>							
1. Innovations, demonstrations and capacity building	1 376	2 817	991	646	506	112	6 449
2. Supporting investments and strengthening stakeholders' linkages to value chain	1 466	9 139	8 322	8 115	4 863	339	32 245
<b>Subtotal</b>	<b>2 842</b>	<b>11 957</b>	<b>9 314</b>	<b>8 761</b>	<b>5 369</b>	<b>451</b>	<b>38 694</b>
<b>B. Institutional and Organizational Development</b>							
1. Community mobilisation and stakeholders' organisation	479	993	1 192	1 057	1 052	602	5 374
2. Policy dialogue	-	36	58	59	60	15	228
<b>Subtotal</b>	<b>479</b>	<b>1 029</b>	<b>1 250</b>	<b>1 116</b>	<b>1 112</b>	<b>617</b>	<b>5 602</b>
<b>C. Project Management (PMU)</b>							
1. Knowledge Management, Planning and M&E	85	8	60	8	9	64	234
2. Project coordination	222	423	430	427	433	434	2 369
<b>Subtotal</b>	<b>307</b>	<b>431</b>	<b>491</b>	<b>435</b>	<b>442</b>	<b>498</b>	<b>2 604</b>
<b>Total PROJECT COSTS</b>	<b>3 628</b>	<b>13 417</b>	<b>11 055</b>	<b>10 312</b>	<b>6 923</b>	<b>1 566</b>	<b>46 900</b>

Georgia  
Dairy Modernisation and Market Access (DiMMA) Program  
**Expenditure Accounts by Years -- Base Costs**  
(EUR '000)

	Base Cost						Fore
	2019	2020	2021	2022	2023	2024	Total
<b>I. Investment Costs</b>							
A. Works	-	2 500	1 250	1 250	-	-	5 000
B. Equipment & Goods /a	1 388	1 566	297	206	107	40	3 603
C. Consultancies /b	282	799	965	748	728	348	3 868
D. Trainings /c	443	645	785	784	748	456	3 860
E. Grant /d	1 385	7 287	7 143	6 673	4 805	250	27 542
<b>Total Investment Costs</b>	3 498	12 796	10 439	9 659	6 388	1 094	43 873
<b>II. Recurrent Costs</b>							
A. Operating Costs	65	114	114	107	107	107	615
B. Salaries and allowances	52	244	265	265	265	244	1 333
<b>Total Recurrent Costs</b>	117	359	379	372	372	351	1 948
<b>Total BASELINE COSTS</b>	3 614	13 154	10 817	10 031	6 759	1 445	45 821
Physical Contingencies	4	134	76	72	9	4	299
<b>Price Contingencies</b>							
<b>Inflation</b>							
Local	16	118	191	240	269	207	1 040
Foreign	2	64	63	85	25	18	257
<b>Subtotal Inflation</b>	17	182	254	325	294	225	1 297
Devaluation	-8	-54	-92	-116	-139	-109	-518
Subtotal Price Contingencies	9	128	162	209	155	117	779
<b>Total PROJECT COSTS</b>	3 628	13 417	11 055	10 312	6 923	1 566	46 900
Taxes	199	873	645	597	322	177	2 813
Foreign Exchange	385	2 708	1 528	1 484	348	204	6 658

/a It includes vehicles, goods and services  
/b It includes studies & technical assistance  
/c It includes workshops and meetings  
/d Matching grants

Georgia  
Dairy Modernisation and Market Access (DiMMA) Programme  
**Expenditure Accounts by Years -- Totals Including Contingencies**  
(EUR '000)

	<b>Totals Including Contingencies</b>						
	2019	2020	2021	2022	2023	2024	Total
<b>I. Investment Costs</b>							
A. Works	-	2 692	1 369	1 392	-	-	5 454
B. Equipment & Goods /a	1 390	1 580	310	218	115	44	3 658
C. Consultancies /b	288	828	1 020	803	794	387	4 120
D. Trainings /c	447	661	819	831	807	500	4 065
E. Grant /d	1 385	7 287	7 143	6 673	4 805	250	27 542
<b>Total Investment Costs</b>	3 510	13 049	10 660	9 918	6 522	1 181	44 839
<b>II. Recurrent Costs</b>							
A. Operating Costs	66	117	119	114	115	117	648
B. Salaries and allowances	52	250	276	281	285	267	1 412
<b>Total Recurrent Costs</b>	118	368	395	394	401	385	2 060
<b>Total PROJECT COSTS</b>	3 628	13 417	11 055	10 312	6 923	1 566	46 900

- a It includes vehicles, goods and services  
b It includes studies & technical assistance  
c It includes workshops and meetings  
d Matching grants



Georgia  
Dairy Modernisation and Market Access (DiMMA) Programme  
**Disbursement Accounts by Financiers**  
(EUR '000)

	GoG		IFAD LOAN 1		Adaptation Fund		Beneficiaries in cash		IFAD LOAN 2		NGO		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1. Works	5 454	100.0	-	-	-	-	-	-	-	-	-	-	5 454	11.6
2. Equipment & Goods /a	2 334	63.8	706	19.3	511	14.0	-	-	106	2.9	-	-	3 658	7.8
3. Consultancies /b	693	16.8	2 031	49.3	441	10.7	-	-	143	3.5	812	19.7	4 120	8.8
4. Trainings /c	721	17.7	1 125	27.7	403	9.9	-	-	492	12.1	1 325	32.6	4 065	8.7
5. Operating Costs	431	66.5	170	26.2	-	-	-	-	48	7.4	-	-	648	1.4
6. Salaries and Allow ances	-	-	1 358	96.2	54	3.8	-	-	-	-	-	-	1 412	3.0
7. Grant	-	-	10 610	38.5	2 291	8.3	9 964	36.2	4 677	17.0	-	-	27 542	58.7
<b>Total PROJECT COSTS</b>	<b>9 633</b>	<b>20.5</b>	<b>16 000</b>	<b>34.1</b>	<b>3 700</b>	<b>7.9</b>	<b>9 964</b>	<b>21.2</b>	<b>5 466</b>	<b>11.7</b>	<b>2 137</b>	<b>4.6</b>	<b>46 900</b>	<b>100.0</b>

/a It includes vehicles, goods and services  
/b it includes studies and technical assistance  
/c It includes workshops and meetings

Georgia  
Dairy Modernisation and Market Access (DiMMA) Programme  
**Disbursements by Semesters and Government Cash Flow**  
(EUR '000)

	Financing Available					Total	Costs to be		
	IFAD LOAN 1	Adaptation Fund	Beneficiaries in cash	IFAD LOAN 2	NGO		Financed Project Costs	GoG Cash Flow	Cumulative Cash Flow
	Amount	Amount	Amount	Amount	Amount				
1	-	-	-	-	-	-	-	-	-
2	1 639	160	393	-	170	2 362	3 628	-1 265	-1 265
3	2 706	377	1 373	-	184	4 641	6 708	-2 068	-3 333
4	2 706	377	1 373	-	184	4 641	6 708	-2 068	-5 401
5	2 455	573	1 348	-	240	4 616	5 527	-911	-6 312
6	2 455	573	1 348	-	240	4 616	5 527	-911	-7 223
7	1 154	512	1 210	1 165	218	4 259	5 156	-897	-8 121
8	1 154	512	1 210	1 165	218	4 259	5 156	-897	-9 018
9	526	204	855	1 474	214	3 272	3 461	-190	-9 208
10	526	204	855	1 474	214	3 272	3 461	-190	-9 397
11	340	104	-	94	128	665	783	-118	-9 515
12	340	104	-	94	128	665	783	-118	-9 633
<b>Total</b>	<b>16 000</b>	<b>3 700</b>	<b>9 964</b>	<b>5 466</b>	<b>2 137</b>	<b>37 266</b>	<b>46 900</b>	<b>-9 633</b>	<b>-9 633</b>

## **Attachment 9.2: Detailed Programme Costs (EUR)**

Table	Description
1	Innovations, demonstrations and capacity building
2	Supporting investments and strengthening stakeholders' linkages to value chain
3	Community mobilisation and stakeholders' organization
4	Policy dialogue
5	Programme management

Republic of Georgia  
Dairy Modernisation and Market Access Programme (DiMMA)  
Design completion report  
Appendix 9: Programme cost and financing

Georgia  
Dairy Modernisation and Market Access (DiMMA) Programme  
Table 1.1. Innovations, demonstrations and capacity building

**Detailed Costs**

**I. Investment Costs**

**A. Piloting and demonstration of aggregation/hubs models**

**1. Aggregation models**

Unit	Quantities						Unit Cost (EUR)	Totals Including Contingencies (EUR)						Expenditure Account		
	2019	2020	2021	2022	2023	2024		Total	2019	2020	2021	2022	2023		2024	Total
processor	1	2	-	-	-	-	3	100,000	100 000	200 000	-	-	-	-	300 000	GRANT
MCC	2	4	-	-	-	-	6	70,000	140 000	280 000	-	-	-	-	420 000	GRANT
MCC	3	3	-	-	-	-	6	10,000	30 000	30 000	-	-	-	-	60 000	GRANT
<b>Subtotal</b>									<b>270 000</b>	<b>510 000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>780 000</b>	

**2. Small processors model**

farmer	3	3	-	-	-	-	6	15,000	45 000	45 000	-	-	-	-	90 000	GRANT
--------	---	---	---	---	---	---	---	--------	--------	--------	---	---	---	---	--------	-------

**3. Supplier model**

farmer	40	80	-	-	-	-	120	10,000	400 000	800 000	-	-	-	-	1 200 000	GRANT
--------	----	----	---	---	---	---	-----	--------	---------	---------	---	---	---	---	-----------	-------

**4. Service providers at farm level model**

farmer	2	4	-	-	-	-	6	20,000	40 000	80 000	-	-	-	-	120 000	GRANT
service	2	4	-	-	-	-	6	75,000	150 000	300 000	-	-	-	-	450 000	GRANT

**Subtotal**

190 000 380 000 - - - - 570 000

**Subtotal**

905 000 1 735 000 - - - - 2 640 000

**B. Demonstrations of technical innovations /c**

**1. Demonstrations at farm level**

demo	40	40	20	10	10	-	120	3,000	120 000	120 000	60 000	30 000	30 000	-	360 000	GRANT
demo	40	40	20	10	10	-	120	3,000	121 020	123 077	62 585	31 824	32 365	-	370 872	E&G&S
demo	15	15	10	10	-	-	50	3,000	45 383	46 154	31 292	31 824	-	-	154 653	E&G&S
cow	1 000	1 000	1 000	1 000	1 000	-	5 000	35	35 298	35 898	36 508	37 128	37 760	-	182 591	E&G&S
demo	-	5	5	10	-	-	20	1,700	-	8 718	8 866	18 034	-	-	35 618	E&G&S
pilot	-	5	5	5	-	-	15	650	-	3 333	3 390	3 448	-	-	10 171	E&G&S
demo	40	40	40	-	-	-	120	1,500	60 510	61 539	62 585	-	-	-	184 633	E&G&S
demo	20	30	10	-	-	-	60	1,000	20 170	30 769	10 431	-	-	-	61 370	E&G&S
lumpsum	-	40	40	40	-	-	120	500	-	20 513	20 862	21 216	-	-	62 591	E&G&S

**Subtotal**

402 380 450 001 296 518 173 475 100 125 - 1 422 500

**2. Collective pasture management demonstrations**

demo	-	8	8	-	-	-	16	25,000	-	200 000	200 000	-	-	-	400 000	GRANT
------	---	---	---	---	---	---	----	--------	---	---------	---------	---	---	---	---------	-------

**Subtotal**

402 380 650 001 496 518 173 475 100 125 - 1 822 500

Republic of Georgia  
Dairy Modernisation and Market Access Programme (DiMMA)  
Design completion report  
Appendix 9: Programme cost and financing

Georgia  
Dairy Modernisation and Market Access (DiMMA) Programme  
Table 1.1. Innovations, demonstrations and capacity building

**Detailed Costs**

	Unit	Quantities						Unit Cost (EUR)	Totals Including Contingencies (EUR)						Expenditure Account		
		2019	2020	2021	2022	2023	2024		Total	2019	2020	2021	2022	2023		2024	Total
<b>I. Investment Costs</b>																	
<b>Subtotal</b>																	
									402 380	650 001	496 518	173 475	100 125	-	1 822 500		
<b>C. Trainings and exchange visits</b>																	
Fields days /e	day	-	120	120	120	120	120	600	600	-	73 846	75 102	76 379	77 677	78 997	382 001	TRAININGS_EA
Exchange visits on aggregation models /f	day	-	30	30	30	30	30	150	1,000	-	30 769	31 292	31 824	32 365	32 916	159 167	TRAININGS_EA
Exchange visits on pasture management	day	-	30	30	20	10	-	90	1,400	-	43 077	43 809	29 703	15 104	-	131 693	TRAININGS_EA
<b>Subtotal</b>										-	147 693	150 204	137 906	125 146	111 913	672 861	
<b>D. Knowledge sharing and communication</b>																	
Publication of leaflets and brochures	lumpsum									-	15 385	15 646	15 912	2 158	-	49 101	E&G&S
TV and radio outreach	lumpsum									-	15 385	15 646	15 912	-	-	46 943	E&G&S
<b>Subtotal</b>										-	30 769	31 292	31 824	2 158	-	96 044	
<b>E. Capacity building of value chain actors</b>																	
International AI specialist/trainer	person.month	0.5	-	-	-	-	-	0.5	12,500	6 303	-	-	-	-	-	6 303	TRAININGS_EA
AI training /g	lumpsum									10 085	-	-	-	-	-	10 085	TRAININGS_EA
ToT field facilitators	person.month	6	-	9	-	-	-	15	850	5 143	-	7 980	-	-	-	13 123	TRAININGS_EA
International ToT field facilitators	person.month	0.5	-	0.5	-	-	-	1	12,500	6 303	-	6 519	-	-	-	12 822	TRAININGS_EA
Training of smallholder and progressive farmers /h	training	18	160	176	176	170	-	700	1,400	25 414	229 744	257 015	261 384	256 766	-	1 030 323	TRAININGS_EA
Training of enterprises (aggregators and farm level service provide	per enterprise	13	20	34	33	17	-	117	273	3 579	5 600	9 682	9 557	5 007	-	33 425	TRAININGS_EA
Training of enterprises_transportation & accommodation /j	per enterprise	13	20	34	33	17	-	117	910	11 931	18 667	32 273	31 856	16 690	-	111 416	TRAININGS_EA
<b>Subtotal</b>										68 759	254 011	313 469	302 797	278 462	-	1 217 498	
<b>Total</b>										1 376 139	2 817 474	991 483	646 002	505 891	111 913	6 448 903	

va 1 MCC per processor. This model considers that 3 processors already exist, so no support for being established

vb 1 MCC per processor. This model considers that 3 processors already exist, so no support for being established

vc All demonstrations are part of the seed capital financing

vd At farm level, for milk cooling etc.

ve Field days on pilot sites. Maximum 20 farmers per field day, 10 field days per farm

vf 6 models x 2 visits/year. 12 people per visit.

vg It includes the costs of training material/consumables

vh Technical, Financial, Business trainings. 3500 Small farmers receive 4 sessions trainings. Average no. of farmers per session is 20. Average cost per farmer is 70

vi Unit cost per enterprise. 4 sessions of one week in total, 11 participants in each session. Each session costs €3,000 for training costs

vj Unit cost per enterprise. 4 sessions of one week in total, 11 participants in each session. Each session costs €3,000 for training costs + €10,000 for accommodation and transport costs.

Republic of Georgia  
 Dairy Modernisation and Market Access Programme (DiMMA)  
 Design completion report  
 Appendix 9: Programme cost and financing

Georgia

Dairy Modernisation and Market Access (DiMMA) Programme

Table 1.2. Supporting investments and strengthening stakeholders' linkages to value chain

Detailed Costs

Unit	Quantities							Unit Cost (EUR)	Totals Including Contingencies (EUR)							Expenditure Account	
	2019	2020	2021	2022	2023	2024	Total		2019	2020	2021	2022	2023	2024	Total		
<b>I. Investment Costs</b>																	
<b>A. Support to emergence of specialized business development service provide</b>																	
Capacity building service providers field equipment /a	CBA	3	-	-	-	-	-	3	10,000	30 255	-	-	-	-	-	30 255	E&G&S
Trainings for capacity building service providers /b	training	3	-	-	-	-	-	3	10,000	30 255	-	-	-	-	-	30 255	TRAININGS_EA
Trainings for capacity building service providers_NGO contribution /c	training	3	-	-	-	-	-	3	10,000	30 255	-	-	-	-	-	30 255	TRAININGS_EA
<b>Subtotal</b>										90 765	-	-	-	-	-	90 765	
<b>B. Development and financing of business plans of value chain actors</b>																	
<b>1. DVCF seed capital financing</b>																	
Market vulnerable dairy producers	farmer	90	800	880	880	850	-	3 500	4,000	360 000	3 200 000	3 520 000	3 520 000	3 400 000	-	14 000 000	GRANT
Progressive dairy producers	farmer	-	50	50	50	50	-	200	10,000	-	500 000	500 000	500 000	500 000	-	2 000 000	GRANT
Silage/hay service providers at farm level	sp	-	-	5	5	5	-	15	75,000	-	-	375 000	375 000	375 000	-	1 125 000	GRANT
AI and vet service providers at farm level	sp	-	5	5	5	-	-	15	20,000	-	100 000	100 000	100 000	-	-	300 000	GRANT
MCC	MCC	-	5	5	-	-	-	10	70,000	-	350 000	350 000	-	-	-	700 000	GRANT
Summer camp MCC	MCC	-	5	5	-	-	-	10	10,000	-	50 000	50 000	-	-	-	100 000	GRANT
Small scale processors including on pasture	processor	-	10	10	4	-	-	24	15,000	-	150 000	150 000	60 000	-	-	360 000	GRANT
Medium scale processors	processor	-	4	3	3	-	-	10	100,000	-	400 000	300 000	300 000	-	-	1 000 000	GRANT
Pasture adaptation grants	installment	-	-	10	20	20	10	60	25,000	-	-	250 000	500 000	500 000	250 000	1 500 000	GRANT
Market vulnerable smallholders	smallholder	-	-	200	200	-	-	400	4,000	-	-	800 000	800 000	-	-	1 600 000	GRANT
Silage production	smallholder	-	2	-	-	-	-	2	77,000	-	154 000	-	-	-	-	154 000	GRANT
Fodder production	smallholder	-	2	-	-	-	-	2	77,000	-	154 000	-	-	-	-	154 000	GRANT
Non extractive livelihoods support	smallholder	-	-	125	125	-	-	250	1,500	-	-	187 500	187 500	-	-	375 000	GRANT
On demand livelihood support	lumpsum	-	-	-	-	-	-	-	-	-	174 000	300 000	300 000	-	-	774 000	GRANT
<b>Subtotal</b>										360 000	5 232 000	6 882 500	6 642 500	4 775 000	250 000	24 142 000	
2. DVCF fund administration	lumpsum	-	-	-	-	-	-	-	-	12 606	12 821	13 039	13 260	13 486	13 715	78 926	CONSULTANCIES
<b>3. Support to implementation of business plans of value chain actors</b>																	
Capacity building service providers_coaching of processors /d	visit	16	36	92	144	172	172	632	100	1 614	3 692	9 596	15 276	18 556	18 872	67 606	TRAININGS_EA
Capacity building service providers_coaching of service providers at farm level /e	visit	16	48	88	128	168	168	616	70	1 130	3 446	6 425	9 505	12 687	12 903	46 096	TRAININGS_EA
<b>Subtotal</b>										2 743	7 138	16 022	24 781	31 243	31 775	113 702	
<b>4. Market development support</b>																	
Branding and differentiation	lumpsum	-	-	-	-	-	-	-	-	-	123 077	-	-	-	-	123 077	E&G&S
Partecipation in trade fairs and other marketing events	lumpsum	-	-	-	-	-	-	-	-	-	10 256	10 431	10 608	10 788	10 972	53 056	E&G&S
Mobile based milk traceability pilot & system /f	pilot	-	1	-	-	-	-	1	30,000	-	30 769	-	-	-	-	30 769	E&G&S
On demand market support /g	pilot	-	1	1	1	1	1	5	30,000	-	30 769	31 292	31 824	32 365	32 916	159 167	E&G&S
<b>Subtotal</b>										-	194 872	41 723	42 433	43 154	43 887	366 070	
<b>Subtotal</b>										375 349	5 446 831	6 953 283	6 722 973	4 862 883	339 377	24 700 697	
<b>C. Implementation of the adaptive pasture management</b>																	
<b>1. Improving pasture roads</b>																	
Pasture roads rehabilitation /h	pasture	-	10	5	5	-	-	20	250,000	-	2 692 317	1 369 043	1 392 317	-	-	5 453 677	WORKS_EA
D. Establishment of a dairy enterprise under the State Program_GoG's contribution /i	lumpsum	-	-	-	-	-	-	-	-	1 000 000	1 000 000	-	-	-	-	2 000 000	E&G&S
<b>Total</b>										1 466 114	9 139 148	8 322 327	8 115 290	4 862 883	339 377	32 245 139	

la 3 SP (one per region). Support package will be office equipment.

lb 3 people trained in 1)business management, 2) HSSP. Trainings in Europe. It includes trainings'costs + accommodation + flight

lc 3 people trained in 1)business management, 2) HSSP. Trainings in Europe. It includes trainings'costs + accommodation + flight

ld 4 visits every year for all processors (including the ones at pilot phase). The amount includes allow ances for transport

le 4 visits every year for all service providers (including the ones at pilot phase). The amount includes allow ances for transport

lf Traceability system including mobile devices

lg Traceability system including mobile devices

lh Total 300 km of roads. 15 km per pasture.

li Cost phase in is estimated.

Republic of Georgia  
Dairy Modernisation and Market Access Programme (DiMMA)  
Design completion report  
Appendix 9: Programme cost and financing

Georgia  
Dairy Modernisation and Market Access (DiMMA) Programme  
Table 2.1. Community mobilisation and stakeholders' organisation

**Detailed Costs**

	Unit	Quantities						Unit Cost (EUR)	Totals Including Contingencies (EUR)							Expenditure Account	
		2019	2020	2021	2022	2023	2024		Total	2019	2020	2021	2022	2023	2024		Total
<b>I. Investment Costs</b>																	
<b>A. Community mobilization</b>																	
<b>1. Course preparation and office costs at regional level</b>																	
Course development and resources preparation	lumpsum							90 765	-	-	-	-	-	-	90 765	TRAININGS_EA	
Vehicle	vehicle	1	-	-	-	-	1	45,000	45 383	-	-	-	-	-	45 383	TRAININGS_EA	
<b>Subtotal</b>									136 148	-	-	-	-	-	136 148		
<b>B. Develop local dairy initiative platforms</b>																	
Exchange visits	Visit	-	20	20	10	10	-	60	3,500	-	74 667	75 936	38 614	39 270	-	228 487	CONSULTANCIES
Dairy initiative platform facilitation /a	Lumpsum	-	-	1	1	1	1	4	20,000	-	-	20 862	21 216	21 577	21 944	85 599	CONSULTANCIES
Dairy Initiative platform support /b	Lumpsum	15	15	15	15	15	15	90	5,000	79 419	80 770	82 143	83 539	84 959	86 403	497 233	CONSULTANCIES
Support to emerging farmers organizations /c	Lumpsum	-	-	4	2	2	-	8	10,000	-	-	43 809	22 277	22 656	-	88 742	CONSULTANCIES
Support to formalize regional/national platforms /d	Lumpsum	-	2	4	2	-	-	8	10,000	-	21 539	43 809	22 277	-	-	87 625	CONSULTANCIES
<b>Subtotal</b>									79 419	176 975	266 559	187 923	168 462	108 347	987 686		
<b>C. Develop farmers' organizations</b>																	
<b>1. Trainings to farmer's organizations</b>																	
Training on organizational development	lumpsum								60 510	97 436	130 385	132 602	134 856	137 148	692 937	TRAININGS_EA	
Training on organizational development_NGO contribution	lumpsum								60 510	97 436	130 385	132 602	134 856	137 148	692 937	TRAININGS_EA	
<b>Subtotal</b>									121 020	194 872	260 770	265 203	269 712	274 297	1 385 874		
<b>2. Support to ACDA</b>																	
Trainings for 5 ACDA staff /e	training.person	5	5	-	-	-	-	10	10,000	50 425	51 282	-	-	-	-	101 707	TRAININGS_EA
Trainings for ACDA staff in country	training.person	10	10	-	-	-	-	20	100	1 009	1 026	-	-	-	-	2 034	TRAININGS_EA
Trainings for ACDA staff in country	training.person									-	5 128	5 215	5 304	5 394	5 486	26 528	TRAININGS_EA
<b>Subtotal</b>									51 434	57 436	5 215	5 304	5 394	5 486	130 269		
<b>Subtotal</b>									172 454	252 309	265 986	270 507	275 106	279 783	1 516 143		
<b>D. Develop PUAs</b>																	
<b>1. Capacity development</b>																	
Incentives to facilitators /f	facilitator.month	-	-	120	240	240	120	720	100	-	-	12 517	25 460	25 892	13 166	77 035	CONSULTANCIES
Training for PUAs	training	-	-	10	20	20	10	60	2,000	-	-	20 862	42 433	43 154	21 944	128 392	TRAININGS_EA
Training for PUAs_NGO in-kind contribution	training									-	-	52 154	53 041	53 942	54 859	213 996	TRAININGS_EA
GIS mapping and development of pasture management plans /g	lumpsum									-	102 564	104 308	-	-	-	206 872	CONSULTANCIES
<b>Subtotal</b>										-	102 564	189 841	120 933	122 989	89 969	626 296	
<b>E. Field facilitators</b>																	
Facilitators /h	person.month	72	360	360	360	360	90	1 602	1,250	90 765	461 540	469 386	477 366	485 481	123 434	2 107 972	CONSULTANCIES
<b>Total</b>										478 785	993 388	1 191 772	1 056 729	1 052 037	601 533	5 374 244	

la to cover small expenses in facilitation  
lb to cover part of running cost of platforms  
lc to cover part of running cost of FO  
ld 4 platforms(1 nat. & 3 reg.) supported for 2 years  
le 2 trainings in Europe. it includes ticket cost, accommodation, cost of training  
lf 60 groups, 1 facilitator per group, 100 euro per month. Same phase in of the grants and trainings  
lg Technical assistance  
lh In Y1 facilitators are needed for 6 months, from Y2 to Y4 for 12 months, in Y6 for 6 months (exit phase)

Georgia  
Dairy Modernisation and Market Access (DiMMA) Programme  
Table 2.2. Policy dialogue

Detailed Costs		Quantities							Unit Cost (EUR)	Totals Including Contingencies (EUR)							Expenditure Account
		Unit	2019	2020	2021	2022	2023	2024		Total	2019	2020	2021	2022	2023	2024	
<b>I. Investment Costs</b>																	
<b>A. National dairy platform</b>																	
Background studies	Study	-	-	1	1	1	-	3	20,000	-	-	21 905	22 277	22 656	-	66 838	CONSULTANCIES
Policy studies	Study	-	1	1	1	1	-	4	20,000	-	21 539	21 905	22 277	22 656	-	88 376	CONSULTANCIES
Policy briefs & outreach	Lumpsum	-	1	1	1	1	1	5	5,000	-	5 385	5 476	5 569	5 664	5 760	27 854	CONSULTANCIES
Advocacy - policy design	Lumpsum	-	1	1	1	1	1	5	8,000	-	8 615	8 762	8 911	9 062	9 216	44 567	CONSULTANCIES
<b>Total</b>											-	35 539	58 047	59 034	60 038	14 977	227 635



Republic of Georgia  
Dairy Modernisation and Market Access Programme (DiMMA)  
Design completion report  
Appendix 9: Programme cost and financing

Georgia  
Dairy Modernisation and Market Access (DiMMA) Programme  
Table 3.1. Project Management Unit (PMU)

Detailed Costs

	Unit	Quantities						Unit Cost (EUR)	Totals Including Contingencies (EUR)						Expenditure Account		
		2019	2020	2021	2022	2023	2024		Total	2019	2020	2021	2022	2023		2024	Total
<b>I. Investment Costs</b>																	
<b>A. General coordination</b>																	
<b>1. Office equipment and furniture</b>																	
Desk computer	Unit	7	-	-	-	-	-	7	850	5 950	-	-	-	-	-	5 950	E&G&S
Laptop	Unit	4	-	-	-	-	-	4	1,300	5 200	-	-	-	-	-	5 200	E&G&S
Printer	Unit	2	-	-	-	-	-	2	450	900	-	-	-	-	-	900	E&G&S
Photocopy machine HD	Unit	1	-	-	-	-	-	1	4,000	4 000	-	-	-	-	-	4 000	E&G&S
IT back-up system	Unit	1	-	-	-	-	-	1	8,500	8 500	-	-	-	-	-	8 500	E&G&S
Office furniture (desk, tables, chairs, shelves, Safe)	Lumpsum	1	-	-	-	-	-	1	20,000	20 000	-	-	-	-	-	20 000	E&G&S
Minor equipment	Lumpsum								4 500	-	-	-	-	-	4 500	E&G&S	
Dig. camera with GPS	Unit	3	-	-	3	-	-	6	150	468	-	-	468	-	-	936	E&G&S
<b>Subtotal</b>										49 518	-	-	468	-	-	49 986	
<b>2. Other offices' equipment</b>																	
Equipment for facilitators	per person	6	24	-	-	-	-	30	1,000	6 051	24 615	-	-	-	-	30 666	E&G&S
Equipment for the regional office /a	lumpsum								10 085	-	-	-	-	-	-	10 085	E&G&S
Equipment for the LCOs	lumpsum								12 102	-	-	-	-	-	-	12 102	E&G&S
<b>Subtotal</b>										28 238	24 615	-	-	-	-	52 853	
<b>3. Workshops, meetings, missions</b>																	
a. Start up workshop	Workshop	1	-	-	-	-	-	1	6,000	6 051	-	-	-	-	-	6 051	TRAININGS_EA
b. Supervision mission /b	Unit	2	2	1	2	2	1	10	10,000	20 170	20 513	10 431	21 216	21 577	10 972	104 879	CONSULTANCIES
c. Mid-term review	Unit	-	-	1	-	-	-	1	14,000	-	-	14 603	-	-	-	14 603	CONSULTANCIES
d. Programme completion mission	Unit	-	-	-	-	-	1	1	25,000	-	-	-	-	-	27 430	27 430	CONSULTANCIES
e. Audit - annual	Lumpsum									-	10 256	10 431	10 608	10 788	10 972	53 056	CONSULTANCIES
<b>Subtotal</b>										26 221	30 769	35 465	31 824	32 365	49 373	206 018	
<b>Subtotal</b>										103 977	55 385	35 465	32 292	32 365	49 373	308 858	
<b>B. Knowledge management and communication</b>																	
<b>1. Studies</b>																	
a. Baseline	Study	1	-	-	-	-	-	1	44,800	44 800	-	-	-	-	-	44 800	CONSULTANCIES
b. Stakeholders' mapping	Study	1	-	-	-	-	-	1	28,000	28 000	-	-	-	-	-	28 000	CONSULTANCIES
c. Mid-term review study	Study	-	-	1	-	-	-	1	50,000	-	-	52 154	-	-	-	52 154	CONSULTANCIES
d. Completion survey	Study	-	-	-	-	-	1	1	50,000	-	-	-	-	-	54 859	54 859	CONSULTANCIES
<b>Subtotal</b>										72 800	-	52 154	-	-	54 859	179 813	
<b>2. Technical assistance</b>																	
a. KM and M&E technical assistance	Person month	1	-	-	-	-	-	1	12,000	12 102	-	-	-	-	-	12 102	CONSULTANCIES
<b>3. KM activities</b>																	
a. KM product preparation and communication activities /c	Study	-	1	1	1	1	1	5	8,000	-	8 205	8 345	8 487	8 631	8 777	42 445	CONSULTANCIES
<b>Subtotal</b>										84 902	8 205	60 499	8 487	8 631	63 637	234 360	
<b>Total Investment Costs</b>										188 879	63 590	95 963	40 779	40 996	113 010	543 218	

Republic of Georgia  
Dairy Modernisation and Market Access Programme (DiMMA)  
Design completion report  
Appendix 9: Programme cost and financing

Georgia  
Dairy Modernisation and Market Access (DiMMA) Programme  
Table 3.1. Project Management Unit (PMU)

Detailed Costs	Unit	Quantities							Unit Cost (EUR)	Totals Including Contingencies (EUR)							Expenditure Account
		2019	2020	2021	2022	2023	2024	Total		2019	2020	2021	2022	2023	2024	Total	
<b>II. Recurrent Costs</b>																	
<b>A. Salaries</b>																	
<b>1. PMU</b>																	
a. Project manager /d	person.month	-	12	12	12	12	12	60	2,500	-	30 769	31 292	31 824	32 365	32 916	159 167	S&A
b. Finance manager /e	person.month	-	12	12	12	12	12	60	2,400	-	29 539	30 041	30 551	31 071	31 599	152 800	S&A
c. Accountant /f	person.month	-	12	12	12	12	12	60	1,800	-	22 154	22 531	22 914	23 303	23 699	114 600	S&A
d. Procurement specialist /g	person.month	-	12	12	12	12	12	60	1,700	-	20 923	21 279	21 641	22 008	22 383	108 234	S&A
e. M&E specialist /h	person.month	-	12	12	12	12	12	60	1,700	-	20 923	21 279	21 641	22 008	22 383	108 234	S&A
f. KM and gender specialist /i	person.month	-	12	12	12	12	12	60	1,700	-	20 923	21 279	21 641	22 008	22 383	108 234	S&A
g. Infrastructure engineer /j	person.month	-	-	12	12	12	12	48	1,700	-	-	21 279	21 641	22 008	22 383	87 311	S&A
<b>Subtotal</b>											-	145 231	168 979	171 852	174 773	177 744	838 579
<b>2. Regional and local coordination offices</b>																	
a. Agribusiness specialist	person.month	6	6	6	6	6	-	30	1,800	10 892	11 077	11 265	11 457	11 652	-	56 342	S&A
b. Livestock production specialist	person.month	6	6	6	6	6	-	30	1,700	10 287	10 462	10 639	10 820	11 004	-	53 212	S&A
c. Climate adaptation/pasture specialist /k	person.month	-	12	12	12	12	12	60	1,700	-	20 923	21 279	21 641	22 008	22 383	108 234	S&A
d. Regional coordinators/value chain specialists /l	person.month	18	36	36	36	36	36	198	1,700	30 860	62 769	63 837	64 922	66 025	67 148	355 561	S&A
<b>Subtotal</b>										52 039	105 231	107 020	108 839	110 690	89 530	573 349	
<b>Subtotal</b>										52 039	250 462	275 999	280 691	285 463	267 275	1 411 929	
<b>B. Operating costs</b>																	
<b>1. Office costs</b>																	
a. PMU office rent and annual utilities /m	month	6	12	12	12	12	12	66	5,000	30 255	61 539	62 585	63 649	64 731	65 831	348 589	OC
b. Regional office rent and annual utilities /n	month	6	12	12	12	12	12	66	650	3 933	8 000	8 136	8 274	8 415	8 558	45 317	OC
c. LCOs rent and annual utilities /o	month	18	36	36	36	36	36	198	500	9 077	18 462	18 775	19 095	19 419	19 749	104 577	OC
d. Lump sum for office costs /p	lumpsum									15 128	15 385	7 302	-	-	-	37 814	OC
<b>Subtotal</b>										58 392	103 385	96 798	91 018	92 565	94 139	536 296	
<b>2. Transportation costs</b>																	
a. Transportation costs for coordinators & facilitators /q	vehicle/year	5	9	18	18	18	18	86	850	4 286	7 846	15 959	16 230	16 506	16 787	77 615	OC
b. Fuel allowances PMU /r	litre	3 500	7 000	7 000	7 000	7 000	7 000	38 500	0.85	3 000	6 103	6 206	6 312	6 419	6 528	34 568	OC
<b>Subtotal</b>										7 286	13 949	22 165	22 542	22 925	23 315	112 184	
<b>Subtotal</b>										65 679	117 334	118 963	113 560	115 491	117 454	648 480	
<b>Total Recurrent Costs</b>										117 717	367 796	394 962	394 251	400 953	384 729	2 060 409	
<b>Total</b>										306 596	431 386	490 926	435 030	441 950	497 739	2 603 626	

- va It includes the cost of 3 computers, 3 phones, 1 printer, desks and chairs
- vb Implementation support and one follow-up mission
- vc Includes policy briefings, project website, webinars, printing
- vd In year 1 this position is fully financed by AMMAR
- ve In year 1 this position is fully financed by AMMAR
- vf In year 1 this position is fully financed by AMMAR
- vg In year 1 this position is fully financed by AMMAR
- vh In year 1 this position is fully financed by AMMAR
- vi In year 1 this position is fully financed by AMMAR
- vj In year 2 this position is fully financed by AMMAR
- vk Financed by the Adaptation Fund
- vl One coordinator per region. They will also work on policy issues with the support of the Project manager
- vm Estimated. GoG in kind contribution
- vn Financed by the loan.
- vo Financed by the loan. 3 offices, one per region.
- vp Financed by the loan. 3 offices, one per region.
- vq 10L/100km, 10,000km/yr, 1000L/yr/car @EUR 0.85(incl,car maintenance,insurance)
- vr 10L/100km, 35000km/yr, 3500L/yr/vehicle incl maintenance and insurance. Estimated GoG in kind contribution

## Appendix 10: Economic and Financial Analysis

1. A financial analysis was undertaken to determine the financial viability and incentives for the programme target group as a result of their engagement in programme activities. Based on the financial analysis' models that form its building block, an economic analysis is developed to examine the programme viability and assess the programme's impact and the overall economic rate of return. DiMMA will generate financial and social benefits by promoting investments and activities aimed at enhancing and/or creating linkages between targeted vulnerable households, service providers and dairy aggregator along the dairy value chain. In particular, it will: (i) support the emergence of raw milk aggregators and processors; (ii) enhance linkages between producers and buyers; (iii) support the emergence of farm level service providers to supply the specialized services and inputs (e.g. fodder, AI and veterinary services, machinery services); (iv) improve farmers and farmers organizations' capacity building; (v) enhance access, availability and quality of pastures; (vi) support farmers to access a niche market for dairy products; (vii) create new job opportunities; (viii) enhance access to financial services, including to the Development Value Chain Fund (DVCF); and (viii) increase vulnerable households' access and adaptation to a more diversified and resilient rural economy.

2. DiMMA's activities are designed taking into account that by 2020 Georgia aims to be compliant with food safety, hygiene and animal welfare requirements, as per the Georgia's Deep and Comprehensive Free Trade Agreement (DCFTA) with the European Union. Therefore, the commercial dairy sector needs to transform both its production and processing to comply with EU-level standards of food safety before 2020.

3. **Number of beneficiaries.** DiMMA is expected to directly and indirectly benefit about 16,620 households, or 54,846 people<sup>44</sup>. Direct households beneficiaries will be 6,740 while the indirect ones will be 9,880. Table 1 and 2 below show the number of direct and indirect beneficiaries by DiMMA's main activity or investment.

**Table 1. Direct household beneficiaries' phasing-in by main activity**

No. of households phasing in by year							
Households category	Y1	Y2	Y3	Y4	Y5	Y6	Total
Farm level service enterprises	4	8	12	12	10	0	46
- Aggregator enterprises 2	36	60	102	94	32	0	324
- Market vulnerable dairy producers 3	90	800	1080	1080	850	0	3900
- Progressive dairy producers	40	130	50	50	50	0	320
- Non extractive livelihood pilots 4	0	0	125	125	0	0	250
- PUA support 5	200	200	250	500	500	250	1900
<b>Total</b>	<b>370</b>	<b>1198</b>	<b>1619</b>	<b>1861</b>	<b>1442</b>	<b>250</b>	<b>6740</b>

1/Each of 29 medium size aggregator will create 8 jobs = 290. Each of 46 small scale aggregator will create 2 jobs = 230. 50% jobs for youth. 30% for women. Total jobs 324 (full time) + 46 jobs created at farm level service enterprise = 370 jobs. 2/ 3500 from Loan+ 400 from AF; 3/ from AF 4/ PUA support = 76 PUA \* 50 per PUA = 3800. Of these 50% already counted as progressive and market vulnerable farmers. So additional outreach is 1900

**Table 2. Indirect households reached by investment/activity**

INDIRECT BENEFICIARIES FROM INVESTMENTS			
INVESTMENT	Number	Benef/unit	Subtotal
MCC	16	55	880
Summer camp MCC	16	10	160
Silage/hay makers	25	60	1500
AI and vet service providers	21	60	1260
Small scale processors	30	10	300
Medium scale processors	13	60	780
<b>TOTAL</b>			<b>4 880</b>
Roads			5000
	<b>Total</b>		<b>9 880</b>

### Financial Analysis

44 Average household size is 3.3. GEOSTAT GEOSTAT, 2014 General Population Census Main Results General Information

4. The primary objective of the financial analysis is to determine the financial viability and incentives of the target group for engaging in programme activities, by examining the impact of programme interventions on family labour, cash flow and net incomes. Based on field visits, national statistics, and on expected programme activities, 8 indicative financial models were identified during the programme design process to demonstrate the financial viability of the investments in different levels of the dairy value chain as well as of the investment in non-extractive livelihood activities: (i) livestock model, market vulnerable dairy producers, (ii) livestock model, progressive dairy producers; (iii) milk collection centre (MCC) activity model; (iv) small scale processing model including on pasture activity model; (v) medium scale processing model, (vi) mechanization service provider at farm level for hay and silage; (vii) artificial insemination (AI) and veterinary service provider at farm level; (viii) beekeeping model to represent non extractive livelihoods activities. A cash-flow analysis is finally carried out to present the “with” and “without” project (WO/WOP) analysis. The livestock and activity models form the building blocks for the economic analysis.

5. **Key assumptions.** The following information gathered during the design mission has been used to set up the analyses: (i) interviews with potential beneficiaries, (ii) information collected from GEOSTAT, and (iii) mission experts’ estimates. In particular, information on labour and input requirements for various operations, capital costs, prevailing wages, yields, farm gate and market prices of commodities, and transport costs were collected. Conservative assumptions were made both for inputs and outputs in order to take account of possible risks. Key assumptions are as follows:

6. **Exchange rate.** The exchange rate used in the analysis is fixed at 1 EUR = 3.1 GEL.

7. **Numeraire and Prices.** The numeraire adopted in the analysis is the domestic price level expressed in domestic currency. The financial prices for programme inputs and products are current prices for the first half of 2018 derived from market and government statistical sources, adjusted where necessary to represent farm gate prices. Economic prices for traded goods have been estimated based on World Bank commodity price of March 2018. The prices used in the analysis are shown in attachment 10.1 to this appendix.

- **Labour.** Family labour has been valued both in financial and economic analysis. It has been assumed that both family labour and hired unskilled labour are priced at GEL 15 per day, which is the prevailing market rate in rural areas.
- **Discount rate.** A discount rate of 12% has been used in this analysis to assess the viability and robustness of the proposed investments. The selected value is calculated by taking into account the average actual and forecasted lending and deposit interest rates<sup>45</sup>.

#### Description of financial models

8. **Livestock models.** Two livestock models have been developed to represent benefits - mainly in increased animal productivity and income deriving from it- that progressive farmers and market vulnerable dairy producers will accrue with programme intervention. Benefits will mainly derive from: (i) enhanced capacity building and technical assistance, including capacity building in supporting farmers to become compliant with the Georgia’s DCFTA with the European Union on food safety, hygiene and animal welfare; (ii) strengthened linkages between all actors of the dairy value chain, (iii) improved access to livestock sector’s service providers (e.g. veterinary services and artificial insemination), (iv) enhanced access to financial services, including to the DVCF (v) improved pasture management access, quality and availability. Both models present WP and WOP scenarios as well as cash flow and financing analyses. The main source of income in the WOP scenarios is cheese. However, due to the new EU regulations to which farmers will have to adapt, the WP foresees that smallholder farmers will gradually stop producing cheese and will start selling milk to MCCs or processors (which establishment will be supported by DiMMA). Increases in animals’ productivity and consequently milk production are gradually introduced up to year 5 in both models. Average

---

<sup>45</sup> Georgia Country Report, Economist Intelligence Unit, March 2018.

production of milk between flush and winter season is considered<sup>46</sup>. The following paragraphs provide a detailed presentation of the assumptions undertaken in each model:

9. **Market vulnerable dairy producers.** This model is representative of the majority of beneficiaries targeted by DiMMA. In the without WOP, farmers own less than 10 cattle (on average 8) and less than 5 cows (on average 4). In the WP, the number of cattle and cows increase respectively to 10 and 6. Farmers will be encouraged to use artificial insemination and therefore its cost is included in the model. With improved animal husbandry and management practices (e.g. improved feeding, veterinary services, artificial insemination), the growth in the number of animals is envisaged to be natural and the following animal parameters are expected to change:

Market vulnerable dairy producers			
Parameters	unit	WOP	WP
Cow	head	4	6
Cattle	head	8	10
fertility	rate	0.75	0.85
lactation duration	day	240	270
Litres of milk per day per cow	litre	8	12
Litres of milk per year per cow	litre	1,440	2,754
calf born per year	head	3	5
milk consumed by calf per calf per year	litre	225	225
milk consumed per year per all calves	litre	675	1148
milk consumed by family per year	litre	495	495
post harvest losses	%	5%	2.5%
mortality calves	%	5%	2.5%
Culling rate	#	1/8	1/6
Hay/cattle/day	kg	5	6
Hay/cattle/yr	kg	600	720
Silage/cattle/yr	kg	0	0
concentrate/cow/yr	kg	180	720
Manure/cattle/day	kg	20	20

10. The main investment, of maximum GEL 12,500<sup>47</sup> to purchase a cow shed and milking machine, is expected to be financed by a matching grant made available by DiMMA through the VCDF (60% programme contribution and 40% beneficiaries' contribution). The financing analysis shows that the net income after financing will be positive from year 1. As per table 2 below, the profitability indicators of both models are overall positive therefore suggesting that Programme's activities and investments are worthwhile to undertake.

11. **Progressive dairy producers.** This model represents the so called "progressive farmers", which will be the first to be engaged in DiMMA's activities because of their more "progressive" attitude in accepting and applying changes in their farms' management, practices and investments. They will be key in driving transformations in the sector and in pulling other smallholders. Their farms will indeed be used as demonstration farms to introduce new practices. In the WOP, progressive farmers are assumed to own an average of 8 cows and 16 cattle while in the WP the number increases to 12 cows and 18 cattle. Artificial insemination is included in this model too. The main indicative investments in the model<sup>48</sup> are represented by a cow shed, milking machine and 2 additional cows<sup>49</sup>.

<sup>46</sup> Flush season is from April to October.

<sup>47</sup> Indicative investment. Subject to business model and farmers' demand.

<sup>48</sup> Indicative investment. Subject to business model and farmers' demand.

Because of their pilot role and in order to incentivize them to become demonstrators, these farmers will access a bigger investment package (maximum GEL 30,000). The matching grant percentage for the first 120 farmers will be 80% with a beneficiary's contribution of 20%. All other farmers will have access to a 60% matching grant and contribute 40% to the total investment, as in the case of market oriented smallholder farmers. With improved animal husbandry and management practices, the following animal parameters are expected to change:

Progressive dairy producers			
Parameters	unit	WOP	WP
Cow	head	8	12
Cattle	head	16	18
fertility	rate	0.80	0.90
lactation duration	day	260	285
Litres of milk per day per cow	litre	10	14
Litres of milk per year per cow	litre	2,080	3,591
calf born per year	head	6	11
milk consumed by calf per calf per year	litre	225	225
milk consumed per year per all calves	litre	1440	2430
milk consumed by family per year	litre	495	495
post harvest losses	%	5%	2.5%
mortality calves	%	5%	2.5%
Culling rate	#	1/8	1/6
Hay/cattle/day	kg	5	6
Hay/cattle/yr	kg	600	900
Silage/cattle/yr	kg	0	750
concentrate/cow/yr	kg	730	2190
Manure/cattle/day	kg	20	20

12. In this case too, the financing analysis shows that the net income after financing will be positive from year 1, after accessing the matching grant. As shown in table 2 below, the profitability indicators of both models are overall positive therefore suggesting that Programme's activities and investments are worthwhile to undertake.

**Table 3. Livestock models summary**

	Net income WOP (GEL)	Net income WP (GEL)	NPV @ 10% (GEL)	B/C	IRR	Investment (GEL)	Switching value benefits	Switching value costs	Return to family labour (GEL/day)
Vulnerable dairy producers	5 923	9 423	9 527	1.85	22%	12 750	-46%	85%	35
Progressive dairy	17 846	24 084	11 814	1.66	17%	29 500	-40%	66%	59

<sup>49</sup> Georgian Breed.

produc ers									
---------------	--	--	--	--	--	--	--	--	--

13. **Milk collection centre (MCC) model.** In order to ensure the success of the dairy value chain and that farmers will be able to market their milk, DiMMA will support the establishment of milk collection centres, which will be supplied by vulnerable smallholder and progressive dairy producers. Considering that MCCs are currently rare in the Programme area and that therefore they need to be mostly established, the model does not present a WOP scenario. It is assumed that DiMMA will support the establishment of 16 MCCs. The total investment cost - approximately GEL 220,000 per MCC - will be supported through the DVCF matching grants. The first 6 established MCCs will receive a 60% matching grant and will have to contribute 40% of the total investment. The following 10 MCCs will receive a matching grant of 40% and will have to contribute 60% of the total investment cost. The capacity of the MCC is assumed to be 3 tons per day, and it will gradually increase from year 1 up to reaching 90% of full capacity after year 5. Post-harvest losses are considered at 5% of total milk collected. Milk production and prices are distinctively considered in the flush and winter season. As summarized in table 3 below, the profitability indicators are positive and show that the investment is worthwhile to undertake.

14. **Small scale processors including on pasture.** A small scale processor could be established by a progressive farmer or a group of farmers that get together and instead of selling their milk to the MCC decide to invest in becoming EU compliant milk processors and produce different varieties of cheese. For the same reasons explained in the MCC model, the small scale processor model does not present a WOP scenario. It is assumed that the capacity of milk processed per day is 500 kg (the farmer could use 120 litres from his own production and 45-50 litres from other 5 neighbour smallholders). Full capacity is gradually reached from year 5 on. In this model, collections costs are not considered because collection is assumed to happen within the neighbour. 70% of the milk is used for producing imeruli<sup>50</sup> cheese whilst 30%<sup>51</sup> for producing sulguni cheese. Milk post-harvest losses are considered at 5% of the total milk purchased. The total investment cost for establishing a small scale processor is estimated at GEL 48,000 (it includes the cost for simple food safety compliance equipment, such as milk cooler). The total investment cost will be supported through the DVCF matching grants. It is envisaged that 30 small scale processors will be established. The first 6 small-scale processors, which will be used as demonstrators, will receive 80% matching grant and will have to contribute 20% of the total investment. The following 10 will receive a matching grant of 60%. Overall, all indicators are profitable as shown in the summary table below.

15. **Medium scale processors.** Medium scale processors will have the same purpose and production of the small ones yet the size of their investment as well as the milk storage capacity will be larger. The total capacity of 3.5 tonnes will gradually increase from year 1 up to reaching 95% of full capacity after year 6. It is estimated that in order to establish an EU compliant processing centre with a capacity of 3.5 tonnes per day, the investment needed is approximately GEL 320,000. DiMMA will support the establishment of 13 medium scale processors<sup>52</sup>. The first 3 small-scale processors, which will be used as demonstrators, will receive a 40% matching grant and will have to contribute 60% of the total investment. The following 10 will receive a 20% matching grant and will finance the remaining 80%.

16. **Farm level service enterprises.** In order to ensure smallholder farmers' access to key services for improving husbandry management and practices, the programme will support the establishment and capacity building of veterinary services and hay bale/silage services. Both models are presented as newly established activity models and therefore do not present a WOP scenario.

17. **Mechanization model (hay bale and silage service).** The model assumes that the service will cover 250 hectares per year, which is gradually achieved in year 5. Initially the service will mostly

<sup>50</sup> It requires 7 kg of milk for 1 kg of cheese

<sup>51</sup> It requires 9 kg of milk for 1 kg of cheese

<sup>52</sup> 3 of them already exist and are operational.

focus on bale service (60%) and a smaller part (40%) on silage. This tendency is gradually inverted up to the point in which the percentage of silage over hay will be higher (from year 4 on). The investment for establishing a hay and silage service provider is estimated at GEL 220,000, including the cost of tractor, round baler etc. DiMMA will support the establishment of 25 mechanization service providers. The first 6, which will be used as demonstrators, will receive an 80% matching grant and will have to contribute 20% to the total investment cost. The remaining ones will receive a 60% matching grant and will contribute to the remaining 40%.

18. **Veterinary and Artificial Insemination (AI) service.** This model assumes that each veterinary provides services to 2,400 cows per year. This number is gradually achieved in year 4. The AI service is provided to 240 cows in year 1 up to reaching 600 cows in year 4. The main investment for establishing the laboratory is GEL 60,000. DiMMA will support the establishment of 21 veterinary laboratories. The first 6, which will be used as demonstrators, will receive an 80% matching grant and will have to contribute 20% to the total investment. The following 10 will receive a 20% matching grant and will contribute to the remaining 80%.

**Table 4. Processing and farm level enterprises models summary**

	Net income WP (GEL)	NPV @ 12% (GEL)	B/C	IRR	Investment (GEL)	Switching value benefits	Switching value costs
MCC	92 960	101 241	1.03	25%	216 425	-3%	3%
Small scale processor	37 423	87 309	1.11	51%	47 850	-10%	11%
Medium scale processor	156 115	551 836	1.10	53%	321 500	-9%	10%
Mechanization (hay & silage) service	70 646	70 108	1.19	21%	223 200	-16%	19%
Veterinary and AI service	17 932	22 254	1.04	21%	60 250	-4%	4%

19. **Non-extractive livelihoods.** Several macro trends, of which the most important are climate change and EU approximation, will inevitably push a number of smallholders out of - and may prevent youth from choosing or finding employment in - the dairy value chain. DiMMA addresses the need for a more diversified and resilient rural economy, reducing the risk of income loss at household and community levels. DiMMA will encourage and nurture new micro-enterprises through which the most vulnerable segments of the rural society – women and youth in priority – can develop new additional sources of income, becoming producers of alternative commodities with growth potential or service providers for the wider community. The maximum total cost of investment is estimated at GEL 4,000. Beneficiaries will have access to the non-extractive livelihood seed financing, which will amount to 80% of the total investment cost and will have to finance the remaining 20%. They will also receive trainings/capacity building for developing and managing the new activity successfully. Activities will be based on households' demand; however, for the purpose of this analysis an indicative beekeeping model has been developed.

- a. **Beekeeping model.** Considering that the targeted households are expected to invest in new activities and in order not to overestimate results, the WOP of this model takes into account the foregone income related to labour requirements in the WP scenario. The WP scenario shows an investment in 16 beehives and other tools for GEL 4,000. With increased experience, production of honey and wax gradually increase from 160 kg in year 1 to 260 kg in year 4. The additional net income that households could



access with 16 beehives is about GEL 4,000 per year. Overall profitability indicators are shown to be positive confirming that it is worthwhile to undertake the suggested activity. The NPV, discounted at 12%, is calculated at GEL 13,530, the IRR is 80%. In terms of fluctuations of benefits and costs, the switching values show that, in order for the this activity to remain profitable, benefits can decrease up to -62% and costs can increase up to +166%.

20. In brief, the financial analysis of all proposed models shows acceptable results suggesting that programme activities are worthwhile to undertake. Furthermore, considering that DiMMA will focus on VC activities, it is estimated that 370 new full time jobs will be created. In particular, it is estimated that each service provider at farm level will hire one full time person; each small aggregator will hire 2 full time persons; and each medium aggregator will hire 8 full time persons.

### Economic Analysis

21. The objectives of the economic analysis are: i) to examine the overall programme viability; ii) to assess the programme's impact and overall economic rate of return; and iii) to perform sensitivity analyses to assess the benefits from a broad welfare perspective.

22. **Key assumptions.** The physical inputs and productions established in the financial analysis provided the basis to determine the viability of the programme investment in terms of opportunity costs and quantifiable benefits to the economy as a whole. The estimate of the likely economic returns from programme interventions are based on the following assumptions:

- a. Programme life has been assumed at 20 years;
- b. Programme inputs and outputs traded are valued at their respective economic prices, and goods are expected to move freely within the programme area in response to market demand;
- c. The **opportunity cost of capital** is calculated at 11%, taking into account the interest rate on long term Government bonds<sup>53</sup>, and the long term deposit rates paid by commercial or similar banks<sup>54</sup>.

23. **Programme economic costs and benefits.** The economic analysis includes the investment and incremental recurrent costs of the programme components. The programme financial costs have been converted to economic values by removal of price contingencies, tax and duties. In order to avoid double counting, the final aggregation considered only those costs that were not included in the financial models.

24. **Benefits Estimation.** The incremental benefits stream comprises the economic net values of livestock and activity models. These benefits are then aggregated by the number of households that are estimated to uptake each activity.

**Table 5. Households phasing-in by activity for economic aggregation**

Households' phasing in by activity for Economic aggregation							
	PY1	PY2	PY3	PY4	PY5	PY6	Total
Beneficiaries Adoption rate 90%	90%	90%	90%	90%	90%	90%	0
Livestock models							
Progressive dairy producers	36	117	45	45	45	0	288
Market vulnerable dairy producers	81	720	972	972	765	0	3 510
MCC and processors							
MCC	2	4	4	5	0	0	15
Medium Processors	1	2	4	3	3	0	13
Small processors	3	3	9	9	4	0	27
Service providers at farmer level							
Mechanization (hay & silage) service	2	4	6	6	4	0	22
Veterinary and AI service	2	4	4	4	5	0	19
Non extractive livelihoods_beekeeping	0	0	112	113	0	0	225
<b>Total</b>	<b>127</b>	<b>854</b>	<b>1 156</b>	<b>1 157</b>	<b>826</b>	<b>0</b>	<b>4 119</b>

<sup>53</sup> National Bank of Georgia, 2018.

<sup>54</sup> World Bank, 2017

25. **Economic Pricing.** Economic pricing has been based on the following assumptions:

- a. The opportunity cost of labour is set at 13.2 GEL/day, or 88.2% of financial cost of labour, which is justified given rural unemployment rate at 11.8%<sup>55</sup>.
- b. The shadow exchange rate (SER) has been calculated at 1 EUR = 3.01 GEL;
- c. The Shadow Exchange Ratio Factor (SERF), used to obtain economic costs, has been calculated at 1.003.

26. **Economic rate of return.** The overall economic internal rate of return (EIRR) of the programme is estimated at 18% for the base case. The net present value (NPV) of the net benefit stream, discounted at 11%, is USD 17.6 million.

**Table 6. Summary of economic analysis**

	Total Benefits EUR '000	Total Costs EUR '000	Cash flow EUR '000
Y1	-1137	2150	-3288
Y2	-5146	5360	-10505
Y3	-5820	3202	-9023
Y4	-4693	2713	-7407
Y5	-1190	1507	-2697
Y6	5976	836	5140
Y7	8263	20	8243
Y8	9980	20	9960
Y9	10964	20	10944
Y10	10938	20	10918
Y11	11131	20	11111
Y12	11109	20	11089
Y13	11133	20	11113
Y14	11245	20	11225
Y15	11281	20	11261
Y16	11281	20	11261
Y17	11281	20	11261
Y18	11281	20	11261
Y19	11281	20	11261
Y20	11281	20	11261
<b>NPV@11%</b>	<b>17 656</b>		
<b>EIRR</b>	<b>18%</b>		

27. **Sensitivity analysis.** In order to test the robustness of the above results, a sensitivity analysis has been carried out; the outcomes of which are presented in the below table. The sensitivity analysis investigates the effect of fluctuations in programme costs, programme benefits, and delays in implementation on the NPV and EIRR. It shows the economic impacts that a decrease in programme benefits – up to -50% – will have on the programme viability. Similarly, it shows how the economic viability of the programme will be affected by an increase of up to 50% in programme costs; and by a one to three-year delay in programme implementation. The analysis confirms that the economic viability of the programme remains attractive as a positive NPV and EIRR above 11% are preserved in each case analysed.

<sup>55</sup> GEOSTAT, 2018

**Table 7. Sensitivity analysis**

	Total Benefits EUR '000	Total Costs EUR '000	Cash flow EUR '000
Y1	-1137	2150	-3288
Y2	-5146	5360	-10505
Y3	-5820	3202	-9023
Y4	-4693	2713	-7407
Y5	-1190	1507	-2697
Y6	5976	836	5140
Y7	8263	20	8243
Y8	9980	20	9960
Y9	10964	20	10944
Y10	10938	20	10918
Y11	11131	20	11111
Y12	11109	20	11089
Y13	11133	20	11113
Y14	11245	20	11225
Y15	11281	20	11261
Y16	11281	20	11261
Y17	11281	20	11261
Y18	11281	20	11261
Y19	11281	20	11261
Y20	11281	20	11261
<b>NPV@11%</b>	<b>17 656</b>		
<b>EIRR</b>	<b>18%</b>		

## Attachment 10.1

### List of prices

Description		Unit	Average	Financial Prices	Economic Prices
				GEL	GEL
Outputs	Fresh Milk (farm-gate)	l	0.9	0.908	0.911
	Milk (at MCC)	l	1.1	1.108	1.112
	Cheese Imeruli factory gate	Kg	9.3	9.250	9.278
	Cheese Sulguni	Kg	11.5	11.500	11.535
	Yoghurt	l	3.0	3.000	3.009
	Ricotta (Nadugi)	kg	3.5	3.500	3.511
	Butter Sulguni	kg	6.8	6.833	6.854
	mowing and gathering	ha	-	140.000	140.421
	baling services	bale (small)	1	1.000	1.003
	silage (roundballs)	roundball	30	30.000	30.090
	silage	kg		0.140	0.140
	arable land Imereti	sqm	5.0	4.958	4.973
	Manure	Kg	0.06	0.060	0.060
	Hay service	kg	0.20	0.200	0.201
	Honey ploriflora	kg		9.000	9.027
	wax	kg		70.000	70.210
Inputs	Feed Concentrate (dairy formula)	kg	0.88	0.883	0.886
	Feed Concentrate (high quality)	kg	1.0	1.000	1.003
	Veterinary expenses basic	head/year	10	10.000	10.000
	Veterinary expenses improved	head/year	28	28.000	28.000
	Artificial insemination	straw	25	25.000	25.075
	Artificial insemination\la	AI	82.5	82.500	82.748
	Veterinary medicine Wholesale	head/year	25	24.640	24.714
	Cow good breed from Georgia	head	3500	3500.000	3500.000
	Cow Local	head	1000	1000.000	1000.000
	Culled cow	head	800	800.000	800.000
	Calf\c	head	500	500.000	501.503
	Rennet (250gr for 250kg milk)	kg	0.044	0.044	0.044
	Beehives	no.		250.000	250.751
Cooling & Processing					
	Transport (farm to cooler)	litre of milk	0.15	0.150	0.150
	Milk can (20 lt)	unit	18	18.000	18.054
	Energy costs\ld	p/month	200	200.000	200.601
	fuel	l	1.95	1.950	1.956
	transport cost small car	km		0.400	0.401
	milking machine	unit	1250	1250.000	1253.757
other	Tractor 90hp		120000	120000.000	120360.716
	Mower (alternative)		25000	25000.000	25075.149
	Baler (20 kg)		36000	36000.000	36108.215
	Round baler (standard 1.2)		60000	60000.000	60180.358
	Wrapper		30000	30000.000	30090.179
	Rake (sun)		1200	1200.000	1203.607
	Trailer (10ton)		35000	35000.000	35105.209
	Vorklift		30000	30000.000	30090.179
	packing material(film)	ha	100	100.000	100.301
	Maintenance tractor	ha	6	6.000	6.018
Labour	Hired / skilled labour	person-day	20	20.000	17.640

Republic of Georgia  
Dairy Modernisation and Market Access Programme (DiMMA)  
Design completion report  
Appendix 10: Economic and financial analysis

	Family / unskilled labour	person-day	15	15.000	13.230
	Processing	pers-year	4500	4500.000	3969.000
	Processing senior/lab/HACCP	pers-year	7500	7500.000	6615.000
	Operation Technician	pers-year	15000	15000.000	13230.000
	Marketing	pers-year	12000	12000.000	10584.000
	Manager/technologist/haCCP	pers-year	15000	15000.000	13230.000
	Accountant	pers-year	6000	6000.000	5292.000

## Attachment 10.2

Derivation of SCF and SER (LCU) with WB data

		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Average	Source of information
Total imports of G&S	M	7 862 555 500	9 847 993 900	11 140 396 100	8 801 270 800	10 945 125 000	13 334 192 000	15 124 251 500	15 475 186 100	17 627 339 300	19 774 256 500	20 187 500 974	16 066 835 911	WB statistics
Total exports of G&S	X	4 532 133 100	5 303 030 300	5 459 217 400	5 348 930 500	7 250 040 800	8 822 850 700	9 982 955 400	11 997 876 500	12 518 271 100	14 206 786 700	14 837 849 065	11 373 804 324	WB statistics
Average duties on imports	t	1.68%	0.53%	0.47%	0.41%	0.64%	0.70%	0.60%	0.58%	0.70%	0.70%	0.70%	82 485 714	Own estimation
Import duties	Tm	132 400 000	52 000 000	51 900 000	35 900 000	70 400 000	93 200 000	90 100 000	89 400 000	94 900 000	69 300 000	70 100 000	-	WB statistics
Average taxes on exports	s	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.00%	0.00%	0.00%	-	Own estimation
Export duties	Tx	-	-	-	-	-	-	-	-	-	-	-	-	WB statistics
Total international commerc	M+X	12 394 688 600	15 151 024 200	16 599 613 500	14 150 201 300	18 195 165 800	22 157 042 700	25 107 206 900	27 473 062 600	30 145 610 400	33 981 043 200	35 025 350 040	27 440 640 234	
	M+Tm	7 994 955 500	9 899 993 900	11 192 296 100	8 837 170 800	11 015 525 000	13 427 392 000	15 214 351 500	15 564 586 100	17 722 239 300	19 843 556 500	20 257 600 974	16 149 321 625	
	X-Tx	4 532 133 100	5 303 030 300	5 459 217 400	5 348 930 500	7 250 040 800	8 822 850 700	9 982 955 400	11 997 876 500	12 518 271 100	14 206 786 700	14 837 849 065	11 373 804 324	
	SCF	<b>0.989</b>	<b>0.997</b>	<b>0.997</b>	<b>0.997</b>	<b>0.996</b>	<b>0.996</b>	<b>0.996</b>	<b>0.997</b>	<b>0.997</b>	<b>0.998</b>	<b>0.998</b>	<b>0.997</b>	
	OER (GEL/EUR)	2.22	2.29	2.19	2.33	2.36	2.34	2.12	2.20	2.35	2.52	2.62		GEOSTAT
	SER	2.24	2.30	2.20	2.34	2.37	2.35	2.13	2.21	2.36	2.53	2.63		

		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Avg	
Average SCF		0.997												
Average SERF		1.003												
OER (2018)		3.00												
SER (2018)		3.01												
Financial discount rate		12%												
Economic discount rate		11%												
<b>Interest rates (source: International fi</b>														
Real interest rate (%)		7%	6%	8%	20%	6%	5%	13%	13%	7%	7%		9%	Fin. Rate
Lending interest rate (%)		16%	17%	19%	18%	15%	15%	14%	12%	11%	14%	11%	15%	
Discount interest rate (%)		10%	12%	11%	11%	10%	12%	9%	9%	7%	12%	9%	10%	12%
Money market interest rate (%)		10%	10%	11%	11%	10%	12%	11%	10%	8%	9%	9%	10%	
Long-term bond yield (%)		13%	10%	-	11%	10%	11%	11%	10%	12%	12%	10%	11%	
														Ec. rate
													11%	11%

## Appendix 11: Draft Programme implementation manual

Only the table of contents of the PIM is presented below. It will be updated and detailed during the inception period.

Currency equivalents

Weights and measures

Abbreviations and acronyms

Map of the programme area

### Introduction

#### 1. Brief description of the programme

- 1.1 Context
- 1.2 Theory of change
- 1.3 Main outcomes
- 1.4 Duration cost and financing
- 1.5 Lessons learnt and synergies with complementary projects
- 1.6 Expected impact
- 1.7 Logical framework

#### 2. Governance, organisational structure and management

- 2.1 Governance arrangements
- 2.2 Organisational structure
  - 2.2.1 PMU
  - 2.2.2 RO
  - 2.2.3 LCO
- 2.3 Staffing and staff management
  - 2.3.1 Staffing and staff terms of references
  - 2.3.2 Reporting lines, coordination mechanisms,
  - 2.3.3 Training and capacity building
  - 2.3.4 Performance assessment
- 2.4 AWPB development and implementation process
  - 2.4.1 Scope of the AWPB
  - 2.4.2 Stakeholder involvement in planning
  - 2.4.3 Planning process
  - 2.4.4 Timing

#### 3. Implementation arrangements

- 3.1 Targeting strategy and target groups
  - 3.1.1 Target areas
  - 3.1.2 Target groups
  - 3.1.3 Outreach and type of beneficiaries
  - 3.1.4 Targeting strategy

- 3.2 Monitoring and evaluation, learning and knowledge management
  - 3.2.1 Results Based M&E
  - 3.2.2 Core M&E Activities
  - 3.2.3 Programme Baseline Study
  - 3.2.4 Annual data collection
  - 3.2.5 Mid-term Review (MTR)
  - 3.2.6 Programme completion survey (impact evaluation)
  - 3.2.7 Database of programme beneficiaries
  - 3.2.8 Geo-referencing
- 3.3 Reporting
- 3.4 Organization and staffing of M&E activities
- 3.5 Learning and knowledge management
  - 3.5.1 Learning
  - 3.5.2 Innovation and scaling up
  - 3.5.3 Knowledge management
- 4. Programme Costs**
  - 4.1 Programme costs by components
- 5 Programme Approach**
  - 5.1 **Component 1**
    - 5.1.1 **Selection of the aggregators**
      - Call for application
      - Submission of expression of interest
      - Shortlisting applications
      - Business plan contents – format
      - Process of developing business plans
      - Submission of BPs
      - Assessment criteria for the business plans
      - Financing process
      - Monitoring and supervision of implementation
    - 5.1.2 **Connecting the to the progressive farmers**
      - Call for application
      - Submission of expression of interest
      - Shortlisting applications
      - Business plan contents – format
      - Process of developing business plans
      - Submission of BPs
      - Assessment criteria for the business plans
      - Financing process



- Monitoring and supervision of implementation

#### 5.1.3 **Demonstrations**

- Call for application
- Submission of expression of interest
- Shortlisting applications
- Business plan contents – format
- Process of developing business plans
- Submission of BPs
- Assessment criteria for the business plans
- Financing process
- Monitoring and supervision of implementation
- Format for recording and reporting results
- Supervision details, monitoring plan

#### 5.1.4 **Training and capacity building**

- Classroom training
- List of training modules
- Contents of the training modules
- Training plan
- Session schedule for each training module
- Training facilitator, facility and other resource plan
- Plan for the Field days
- Plan for the exposure visits

### 5.2 **Component 2**

#### 5.2.1 **Selection of the FLSP and the market vulnerable producers**

- Call for application
- Contents of the call for proposal
- Format for application
- Criteria for shortlisting
- Format for the business plans
- Criteria for assessment of the business plans
- Financing plan
- Verification checklist
- Social ranking process and criteria

#### 5.2.2 **Seed capital financing**

##### 5.2.2.1 **DVCF manual**

- The flow of funds
- Appraisal process for different target groups
- Disbursement process

- Monitoring and supervision
- Mechanism for coordination FIs
- Reporting system

#### 5.2.3 Pasture Management plans

- PMPs format
- Introduction
- Threat analysis
- Adaptation strategy
- Adaptation activities including roads rehabilitation
- Management plan
- Fees and revenue generation for maintenance
- Proposal for the PAF grant

#### 5.2.4 PAF manual

- The flow of funds
- Appraisal of PMPs
- Disbursement process
- Monitoring and supervision
- Reporting system

## 6 Financial management procurement and governance

- 6.1 Country fiduciary risk assessment
- 6.2 Programme fiduciary risk assessment
- 6.3 Implementation arrangements
  - Financial Management Organization and staffing
  - Budgeting
  - Disbursement arrangements and Flow of Funds
  - First disbursement conditions
  - Accounting and financial reporting arrangements
  - Counterpart contributions
  - Internal controls and internal audit
  - External Audit
- 6.4 Governance
  - Anticorruption and Good Governance Framework
  - Grant Implementation Manual
- 6.5 Procurement
  - Arrangements for Procurement under the Programme
  - Risk Mitigation Measures

## Appendix 12: Compliance with IFAD policies

Policy	Alignment with IFAD Policy
<b>IFAD Strategic Framework 2016-2025: « Enabling Inclusive and Sustainable Rural Transformation »</b>	<p>IFAD's Strategic Framework 2016-2025 serves as an overarching policy guideline to provide direction to IFAD's work and consolidate IFAD's development effectiveness. It positions IFAD to play a crucial role within the new global environment – by enabling the transformation of rural areas in a manner that is both more inclusive and sustainable. The framework has three strategic objectives:</p> <ol style="list-style-type: none"> <li>1. <b>SO1: Increase poor rural people's productive capacities</b> – investing in rural people to enhance their access to and control over assets and resources. <ul style="list-style-type: none"> <li>➤ <b>DiMMA</b> will increase the access of smallholder dairy producers to new production technologies, inputs and services; and will strengthen their technical and business capacities so that they can utilize these effectively.</li> </ul> </li> <li>2. <b>SO2: Increase poor rural people's benefits from market participation</b> – improving the engagement of poor rural people in markets for goods, services and wage labor. <ul style="list-style-type: none"> <li>➤ <b>DiMMA</b> will assist smallholder dairy producers to participate, supply their produce for, and benefit from, modern value chains; and will assist other poor rural people to identify and benefit from employment opportunities along the value chain.</li> </ul> </li> <li>3. <b>SO3: Strengthen the environmental sustainability and climate resilience of poor rural people's economic activities.</b> Recognizing the key importance of environmental sustainability to ensure continued profits and improved livelihoods. <ul style="list-style-type: none"> <li>➤ <b>DiMMA</b> will reduce pressure on grazing lands and pastures, rehabilitate degraded land and introduce new management practices and technologies. It will apply a resilience model to identify adaptation actions to be supported and monitor changes in resilience for programme beneficiary households.</li> </ul> </li> </ol>
<b>Targeting policy</b>	<p>IFAD's targeting policy defines its target group as “rural people living in poverty and experiencing food insecurity in developing countries. Within this broad group, IFAD proactively strives to reach extremely poor people who have the potential to take advantage of improved access to assets and opportunities for agricultural production and rural income generating activities”. It also (a) establishes a shared conceptual understanding of targeting; (b) outlines the general principles that guide IFAD in identifying and reaching the target group, and the methods it uses to this end; and (c) provides an overview of how targeting should be addressed in IFAD's operations.</p> <p><b>DiMMA</b> design clearly identifies the target group, with different sub-groups (progressive, market-oriented and subsistence smallholder farmers) drawn principally from the category of ‘productive poor’; it defines a clear targeting strategy, based on geographical, direct and self-targeting methods; and it proposes measures for mobilization and empowerment of the target group. Specific measures will be introduced to prevent elite capture and conflict of interest. For more details see Appendix 2.</p> <p>Youth will form an important part of the target group, and quotas will target minimum levels of youth participation in different programme activities. Young farmers will be proactively targeted as innovative ‘lead farmers’ for piloting, training, capacity building, linking with other stakeholders in value chain and brokering access to finances. Young people are also expected to be interested working in service provision, as veterinarians, or providing mechanization and AI services, as well as small scale trading of inputs. Young farmers and entrepreneurs who undergo training and coaching facilitated by DiMMA will be able to benefit from various non-programme targeted financing products.</p>
<b>Gender equality and women's empowerment policy</b>	<p>IFAD's gender policy aims to promote economic empowerment to enable rural women and men to participate in and benefit from profitable economic activities; enable women and men to have equal voice and influence in rural institutions and organizations; and achieve a more equitable balance in workloads and in the sharing of economic and social benefits between women and men.</p> <p><b>DiMMA's</b> support for the modernization of the dairy sector – associated with a shift from farm-level sales of cheese to raw milk – will significantly reduce the workload of women, who are principally responsible for cheese-making (Reduce Workloads – SO3). Women are present</p>

	<p>among commercially-oriented farms in Georgia, as well as among service providers, such as veterinarians and para vets. Women can thus be targeted both as small scale producers, especially in supporting premium quality cheese production in touristic areas, and as providers of other services to dairy producers. (Economic empowerment – SO1). Women will also be encouraged to participate in the Multi-Stakeholder Platforms to voice the specific needs of women and channel concerns to the Programme (Equal Voice and Decision-Making – SO2). DiMMA will develop a Gender Strategy and Action Plan defining the specific targeting mechanisms to engage women in its activities and enable them to access its opportunities and share benefits. As for youth, quotas will target minimum levels of women's participation in different programme activities.</p>
<b>Private Sector Strategy</b>	<p>IFAD's Private Sector Strategy (2011) makes clear that IFAD seeks to use projects to promote rural pro-poor private sector development; and that engagement with the private sector (be it small, medium, or large; domestic, regional, or international companies) should serve to create markets for its target groups; improve their access to inputs, services, knowledge and technology; and increase income-generating or job-creating opportunities for its target populations. The IFAD toolkit on Public-Private-Producer Partnerships (4P) in Agricultural Value Chains (2016) takes these principles further, and provides guidance on IFAD's engagement with the private sector.</p> <p><b>DiMMA</b> takes as its starting point, and will serve to support, GoG's goal of a transformation of the dairy sector based on the creation an ecosystem of modern service providers and milk aggregators/ collectors in the dairy value chain, and an industrial dairy sector that is actively encouraging and supporting this to meet their demand for raw milk. It will look to leverage investment by upstream and downstream value chain players that will deliver services to smallholder dairy producers and create markets for their produce; stimulate productivity- and quality-enhancing investment by producers themselves; and broker the establishment of commercial partnerships between them (4Ps), which share risks, distribute benefits fairly, and contribute to the transformation of the dairy sector in Georgia.</p>
<b>Rural finance policy</b>	<p>IFAD's Rural Finance Policy (2009) has six guiding principles to be applied at the micro, meso and macro levels: (i) support access to a variety of financial services; (ii) promote a wide range of financial institutions, models and delivery channels; (iii) support demand driven and innovative approaches; (iv) encourage – in collaboration with private sector partners – market-based approaches that strengthen rural financial markets, avoid distortions in the financial sector and leverage IFAD's resources; (v) develop and support long-term strategies focusing on sustainability and poverty outreach; and (vi) participate in policy dialogues that promote an enabling environment for rural finance.</p> <p><b>DiMMA</b> will seek to link programme beneficiaries to appropriate and already-existing funding sources in both the private and public sectors (credit, insurance, leasing, grant, subsidy). It will work closely, on one hand, with banks, MFIs, agro-leasing and agro/micro-insurance companies, and government-funded schemes; and on the other, with private sector actors in the dairy value chain and smallholder farmers, to create linkages between supply and demand for financial services and build last relationships between the players in the financial services market.</p> <p>IFAD's Technical note on matching grants (2012) indicates that well-designed matching grants can “help draw private investments and investors into growing or underserved markets by addressing specific barriers to market entry... They can therefore stimulate market development and be part of public policies for making markets work for poor people”.</p> <p><b>DiMMA</b> will establish a Dairy Value Chain Development Facility to provide partial financial support for, and prime, targeted private investments along the value chain – cofinancing priority private infrastructure and equipment that are too risky for an entrepreneur or a bank. The farmers/other value chain actors themselves will be expected to make a matching contribution, either from their own resources or with loans from financial institutions</p>
<b>Climate Change Strategy</b>	<p>IFAD's Climate Change Strategy notes that IFAD's goal is to maximize the fund's impact on rural poverty in a changing climate.</p> <p><b>DiMMA's</b> design has actively integrated climate change issues, informed by a basic climate risk analysis (see SECAP Review Note). DiMMA is expected to be moderately sensitive to</p>

	<p>climate risks, mainly due to the exposure of Georgia agriculture sector to expected changes in temperature and rainfall. However, a key aim of the programme will be to reduce the vulnerability of the rural poor to those risks and programme funds are allocated to ensure climate adaptation and resilience of both infrastructures and livelihood strategies of rural poor.</p>
<p><b>Environmental and natural resource management policy</b></p>	<p>IFAD's 2012 ENRM policy aims to integrate the sustainable management of natural assets across the activities of IFAD and its partners.</p> <p><b>DiMMA</b> represents a NRM-oriented approach to using natural capital available in Georgia. It aims at improving natural resource management and promoting environmental conservation and sustainability through its emphasis on the rehabilitation of degraded land, the introduction of new management and maintenance practices and technologies, and the reduction of anthropic pressure on grazing lands and pastures. Overall, the programme is not expected to have any significant adverse environmental or social implications and though there may be some environmental risks associated with construction of agricultural infrastructure or rural roads, these will be in accordance with Georgia's new Environmental Assessment Code. Overall DiMMA is considered to be Environmental and Social Category B. An Environmental and Social Review Note is presented in Appendix 13 providing more information on DiMMA's compliance with environmental policies.</p>
<p><b>Knowledge management</b></p>	<p>The Knowledge Management strategy suggests that projects should have baseline studies and should have dedicated frameworks for knowledge management in order to "learn systematically and collectively from its own projects and programmes, and from the experience of its partners, particularly poor rural people, in order to deliver high-quality services and to enable its partners to find innovative ways to overcome poverty, and to use the knowledge acquired to foster pro-poor policy reforms."</p> <p>In <b>DiMMA</b> knowledge management will play a central role. Knowledge generated will serve to modify programme operational and targeting strategy as need be during the course of implementation, as well as to assist GoG to understand the socio-economic impacts of the evolving regulatory regime within the dairy sector and take appropriate policy measures as and where required. KM activities will thus include sharing programme results and lessons with the government and other donors in the country. The MSPs will present a powerful mechanism through which knowledge sharing will happen to improve information flow among diverse stakeholders; while at the PMU a knowledge management / innovation system will be established and managed by the M&amp;E officer to ensure an effective flow of technical knowledge and feedback.</p>
<p><b>Scaling-up</b></p>	<p>The definition adopted by IFAD for scaling-up is: "expanding, adapting and supporting successful policies, programmes and knowledge, so that they can leverage resources and partners to deliver larger results for a greater number of rural poor in a sustainable way". Scaling up results does not mean transforming small IFAD projects into larger projects.</p> <p>Within <b>DiMMA</b>, innovations and best practices proven to work at village level will be analyzed for the purpose of replication and scaling-up, and farmers with innovations and best practices will be used as mentors for others in order to accelerate the scaling-up and replication of those innovations. In addition, by promoting investment by upstream and downstream players in the value chain, so the model of a commercially-oriented smallholder dairy production can spread (i.e. scaled up) beyond the initially defined programme target group. Further, if the programme is able to successfully develop a model for successfully integrating smallholder dairy producers into modern value chains, then this will almost certainly be subsequently scaled up into other regions where dairy production is important, by GoG and other development partners as well as IFAD.</p>

## Appendix 13: SECAP Review Note

### 1. Major landscape characteristics and Issues (Social, natural resources, and climate)

#### 1.1. Socio-cultural context

1. Georgia spans on a territory of 69,700 sq.km and, as of January 2016, is a home to 3.72 million people (National Statistics Office of Georgia (GeoStat), 2016). Georgia's capital – Tbilisi - is the largest city of the country with the population of 1.1 million people<sup>56</sup>.



2. Georgian is a semi-presidential democratic state with multiparty system, has a president, as Head of the State and Prime Minister, as head of Georgian Government (GoG). The President of the Republic and the government wield executive power. The Parliament holds the legislative power in Georgia and court power is executed by constitutional court and other united courts. Georgia is divided in nine regions: Guria, Imereti, Kakheti, Kvemo Kartli, Mtskheta-Mtianeti, Racha-Lechkhumi and Kvemo Svaneti, Samegrelo and Zemo Svaneti, Samtskhe-Javakheti, Shida Kartli. Georgia has two breakaway regions – Abkhazia and South Ossetia. A region is a non-self-governing administrative unit providing coordination and communication of several municipalities therein (with the exception of the municipalities of Adjara and that of Tbilisi) with the central government. The 'State Commissioner' or the 'Governor' leads a region being formally appointed by the Prime Minister of Georgia.
3. Each region of Georgia is sub-divided in municipalities. According to the Local Self-Government Code of Georgia (2014), a municipality is a self-governing unit where a local self-governance is implemented. The municipality could be under the form of a settlement (self-governing city) which has administrative borders or of a unity of settlements (self-governing community or 'Temi'), which has administrative borders and administrative centre. A municipality has elective representative and executive bodies, registered population and hold its own property, budget, and revenues. The executive body of the municipality is called Gamgeoba (or Municipality Board), and the highest official of the municipality is a Governor (Gamgebeli or Head of the Board), or a mayor for self-governing city. For the purposes of optimisation of governance, a municipality may be again sub-divided in administrative units.
4. Population of Georgia has significantly decreased since the collapse of the Soviet Union. In 1991, the population of Georgia was 5.464 million (State Statistics Committee of the United Soviet Socialist Republics, 1991). Georgia was named as a country with high-emigration (with respect to its population), the World Bank denoted that at least 15% of the country's population had migrated permanently since 1990s<sup>57</sup>.

<sup>56</sup> Geostat, 2016: <http://geostat.ge/>

<sup>57</sup> World Bank, 2016

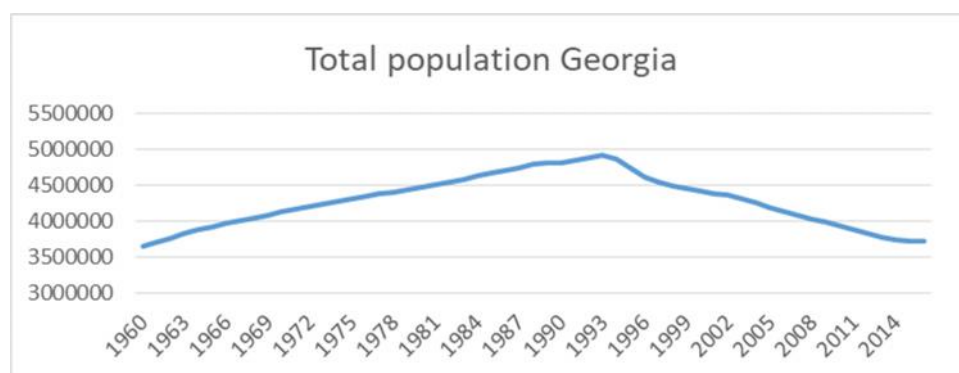


Figure 11: Total population in Georgia (World Bank, 2016)

- A. Rural poverty.** Detailed information is contained appendix 2.
- B. Gender and youth.** Detailed information is contained appendix 2.
- C. Land and water tenure.**
5. Pastures in Georgia are included under agricultural lands. According to the Strategy for Agricultural Development in Georgia for 2015-2020, agricultural lands accounts for over 3 million ha and constitute 43.4% of the whole territory of Georgia, and includes in addition to arable lands, pastures and meadows. It is estimated that 25% of Georgia's total land area is classified as permanent pastureland which represents about 1.7 million ha of Georgia total land area of 6.9 million ha. This confirms the importance of pastures, as they constitute over 50% of the total agricultural lands in Georgia.
  6. Following Georgia's independence, an important part of the agricultural land was privatized although the official status of agricultural land registration remains unclear. To date, there no clear delineation of state- owned, municipal and privately-owned land for agricultural land and only 20-30% of the agricultural lands are officially registered by the National Agency of Public Registry<sup>10</sup>. In 2010, with the issuance of the Law of State Property, privatization of pasture was de facto stopped; however, some of pasture lands were already acquired by private owners between the independence and the issuance of the Law. The current ownership of pastures is estimated as follows:
    - Private owners: 15% -25%
    - Municipalities: 2-5%
    - APA: 2% (out of the 7% of the total Protect Areas territory at national level)
    - Public Property: 70-80%
  7. Currently, conflicting policies are driving the pastures registration process. On one hand, the Agency of State Property (ASP) is conducting a national inventory of all state land, including pastures, in view of strengthening the administration of state property. The inventory is expected to be finalized in September 2016, and ASP is coordinating with municipalities and concerned ministries the registration process of state property. On the other hand, the Ministry of Regional Development and Infrastructure (MRDI) is supporting municipalities to register state property, including pastures in view of strengthening the decentralization process in Georgia. This process is aiming at improving revenues of municipalities and is linked to various on-going legal, institutional and financial support to local development.

## 1.2 Natural resources and their management

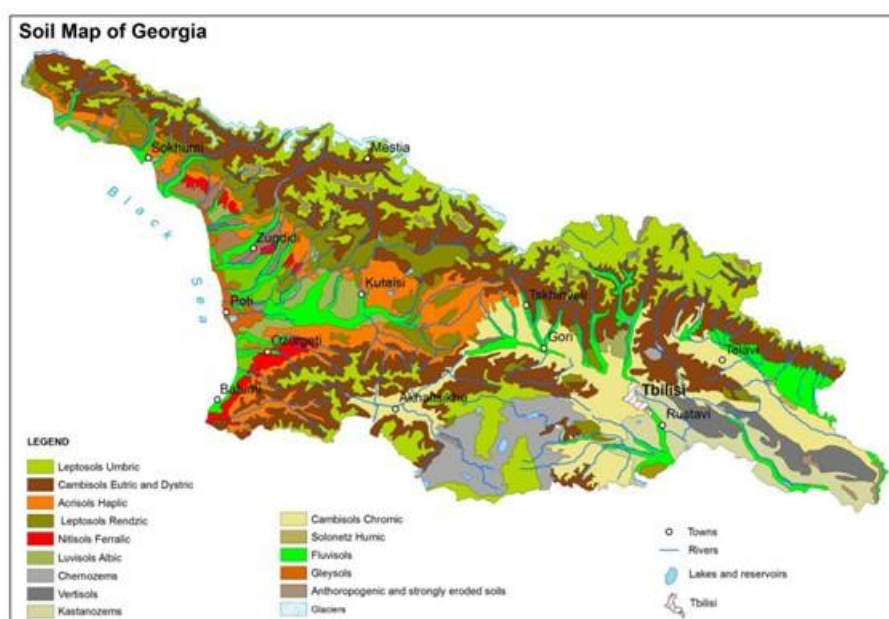
8. Georgia is a mountainous country with rich biodiversity and varying climate and precipitation. Almost the entire infrastructure, industrial and agricultural lands are located in the lowlands. About half of the area is farmland, constituting mostly of hay land and pastures due to the mountainous structure. Arable land often requires land reclamation measures. The key environmental problems (not in order of priority and described further below) in Georgia include pollution to air and water, land degradation, forest degradation and loss of biodiversity, affecting the provision of ecosystem services negatively

### A. Water resources

9. The country can be divided into two main river basin groups: The Black Sea Basin, in the west of the country. The internal renewable surface water resources (IRSWR) generated in this basin are estimated at 42.5 km<sup>3</sup>/year. Although water is abundant in Georgia, it is unevenly distributed geographically. Almost 80% of the fresh water is found in the western part of the country, while a majority of industrial facilities, irrigated land, and population is situated in the eastern part. This can cause diluting problems, which - in combination with failing infrastructure for water supply, sewage, and wastewater treatment – can pollute watercourses and affect human health. Many of the rivers, especially Mtkvari and Rioni, are heavily polluted, affecting water quality nationally as well as in downstream countries.
10. Coliform bacteria levels in reservoirs and water supply systems have reached dangerous levels in many areas. The quality of drinking water often does not comply with human health and safety standards. The major sources of water pollution are domestic, industrial and agricultural activity, including inadequate waste management practices. In 1996, only 13% of domestic and industrial sewage was treated prior to discharge. Also the Black Sea is heavily polluted by uncontrolled sewage, agricultural runoff, oil spills and dumping of wastes. The entire ecosystem of the Black Sea has begun to collapse, and the wetlands (including Ramsar sites) are heavily affected.

### B. Soil and land degradation issues

11. Georgia is among the countries having very diverse soil types within a small area, stipulated by vertical zonality consisting from five climatic zones. Distribution of the major soil types are shown on the map (Figure 2).



**Figure 12: Soil map of Georgia**  
 (JRCEC, Soil Resources of Mediterranean and Caucasus Countries, 2013)

12. Soil erosion, desertification (mainly in east Georgia) and salinization (most common in east Georgia) are growing problems. Water and wind erosion, environmentally degrading agricultural practices and other anthropogenic (e.g. uncontrolled logging growing lately following Geostat, 2016) and natural processes has led to an almost 35% degradation of farmland. Given the scarcity of arable land, soil erosion remains one of the greatest problems, unfortunately no study has been led on the subject yet. There is no systematic monitoring of industrial pollution of soils. There is however, an increase in the use of chemical substances (fertilizers, pesticides, herbicides, etc.) which may affect the soil quality. Bad waste management practices, including insanitary landfills (official and illegal dumping sites) cause constant pollution of soil, water and air.



### **C. Vegetation cover**

13. Forests, which cover almost 40% of the land area, are mainly located in mountainous areas and large parts are severely degraded, currently the average density of the forest has reached a critical threshold in 52% of the land area. The intensive deforestation since the late 1990s is unprecedented in the history of Georgia. Unsustainable forestry practices are affecting the diversity, quality and productivity of the forests. Deforestation is mainly due to an almost complete reduction of timber import from Russia. Besides, a sharp reduction of fuel import has been compensated by illegal logging by the population. Degraded forests have drastically decreased protective functions (protection of soils, storage of waters, regulation of waters, sanitary-hygienic functions, etc.) and self-recovery ability. Landslides and avalanches are becoming more frequent. Deforestation exerts a negative influence on the entire ecological state in Georgia.
14. The mountain ranges with the predominant grasslands are very rich in species with many endemic to the region. Overgrazing is the primary cause of degradation followed by Climate Change, unfortunately legal and institutional framework on pasture management is inexistent in the country. The pastoral lands are regulated informally by groups of farmers with an implicit and cultural understanding of the resources. Projects already worked on pasture management in Georgia but were only limited to protected areas (e.g. UNDP in cooperation with the Ministry of Environment and Natural Resources Protection<sup>58</sup>). Examples in the region can be found in Kyrgyzstan and Tajikistan where IFAD is leading projects on pastoral lands<sup>59</sup>. Knowledge and learnings from those projects will be valuable to develop DiMMA pasture management activities at implementation for Pasture user associations and pasture management plans (see Appendix 4).

### **D. Biodiversity**

15. Because of its high landscape diversity and low latitude, Georgia is home to about 5,601 species of animals, including 648 species of vertebrates (more than 1% of the species found worldwide) and many of these species are endemics. The Caucasus is one of the most biologically rich areas on earth and is ranked among the planet's 25 most diverse and endangered hotspots by Conservation International. The bulk of biodiversity is found in the forests, freshwater habitats, marine and coastal ecosystems and high mountain habitats; these are also where the threats are the greatest.

### **1.3 Climate change impacts and vulnerabilities**

16. The climate of Georgia is extremely diverse, considering the nation's small size. There are two main climatic zones, roughly separating Eastern and Western parts of the country. The Greater Caucasus Mountain Range plays an important role in moderating Georgia's climate and protects the nation from the penetration of colder air masses from the north. The Lesser Caucasus Mountains partially protect the region from the influence of dry and hot air masses from the south as well.
17. Much of western Georgia lies within the northern periphery of the humid subtropical zone with annual precipitation ranging from 1,000–2,500 mm. The precipitation tends to be uniformly distributed throughout the year, although the rainfall can be particularly heavy during the autumn months. The climate of the region varies significantly with elevation and while much of the lowland areas of western Georgia are relatively warm throughout the year, the foothills and mountainous areas experience cool, wet summers and snowy winters, snow cover often exceeds 2 meters in many regions. Eastern Georgia has a transitional climate from humid subtropical to continental. The region's weather patterns are influenced both by dry, Caspian air masses from the east and humid, Black Sea air masses from the west. Annual precipitation is considerably less than that of western Georgia and ranges from 400–1,600 mm.

### **A. Climate Change Impacts**

---

<sup>58</sup> Sustainable management of pastures in Georgia to demonstrate climate change mitigation and adaptation benefits and dividends for local communities, EU-UNDP, 2013-2016

<sup>59</sup> LMDP-II and LPDP IFAD projects

18. Following the IPCC, at regional level in West Asia, upward temperature trends are notable and robust in recent decades. Also, a weak but non-significant downward trend in mean precipitation was observed in recent decades, although with an increase in intense weather events. Recent study from the National Adaptation Plan for Agriculture (NAPA) in Georgia observed changes in climate and therefore in agro-climatic zones in Georgia<sup>60</sup>. Change of agro-climatic zones against the background of the temperature increase and change of precipitation is one of the highest risks caused by climate change for the agriculture sector. Following the report, the total active temperature has increased in most part of the country. According to the data of 1991-2015, precipitation in the vegetation period decreased only slightly.
19. The analysis of the last decades climatic patterns (1960-2016) done by IFAD in 2017<sup>61</sup> (see Annex 1), in support of the design missions, confirms that the climate in Georgia has already changed and that the main trends foreseen by the IPCC and the NAP are becoming evident. Extremes in maximum and minimum temperatures have an increasing trend since 1960, meaning warmer maximum temperature in summer and colder minimum temperature in winter, significantly for most of the Regions in the country.
20. Significant decrease in annual rainfall since 1981 is observed for several of the municipalities in Georgia but not at regional level except for Shida Kartli region. Georgia has several micro climates and the trends for annual precipitation can vary from one municipality to another within the same region (i.e. significant increase in Martvili and significant decrease in Tskhakaia within the Samagrelo and Zemo Svaneti region). Significant decrease of annual rainfall is noted at local level in most of the municipalities in Imereti particularly during summer and in the North of Kakheti Region throughout the whole year. Those municipalities have experienced smallest amount of annual rainfall since 1981 three years in a row (2014-2015-2016).
21. A shift in intra annual monthly rainfall is observed in 3 regions of the programme except in Samtskhe-Javakheti with an increase in concentration of monthly rainfall in early autumn and late winter and a decrease in summer (with a negative trend of around 1mm/year for August). Rainfall events are not equally distributed during summer season and assessments show trends of longer dry period and bigger rainfall events increasing erosion and provoking mudflows and landslides. The study shows a significant increase in heavy rainfall events (>50mm/day) during summer season for the period 1981-2016 in the 4 regions of the programme (see Annex 1).
22. Study of trends in snow cover for the period 2000-2016 was also conducted by IFAD<sup>62</sup> based on satellite imagery from Landsat, NASA (see Annex 2) Results show as expected that the percentage of the territory covered by snow is higher during December-January-February-March. In the two regions situated in the north of the country (Racha-Lechkhumi and Kvemo (lower) Svaneti, Samergelo and Zemo (upper) Svaneti) the study shows a negative trend for January to March since 1981 meaning a decrease in snow cover over time during the snowy months of the year.
23. Also, the significant variability in total annual rainfall since 1981 has been coupled with pasture areas to identify the most vulnerable pastoral lands in Georgia (see map in appendix 4B). As per fact, the 3 regions within the programme area are negatively affected by significant decrease in total annual rainfall and the situation may worsen if the trend is maintained in the future decades.
24. From the above data we can conclude the following: (i) although there is uncertainty of increase or decrease in annual rainfall in certain areas of the country at regional level, significant trends can be observed at lower level. Rains are more concentrated and heavier in summer, increasing the torrential regime and thus the risk of flooding, soil erosion, and reduced infiltration of water in the soils (lower availability of water in during the warm season); (ii) the precipitation decrease in

---

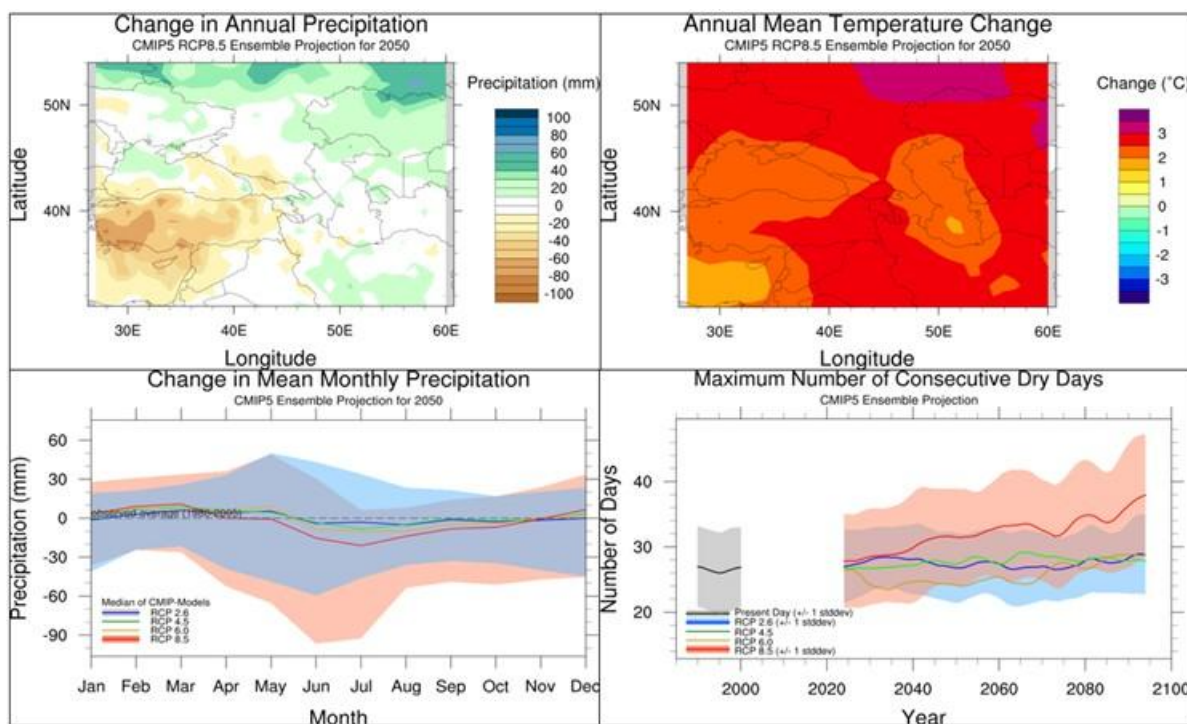
<sup>60</sup> Climate Change National Adaptation Plan for Georgia's Agriculture Sector, Ministry of Environment and Natural Resources Protection of Georgia, 2017

<sup>61</sup> Georgia Georeferenced Climate Trends Assessment 1981-2016. IFAD 2017.

<sup>62</sup> Georgia Georeferenced Climate Trends Assessment 1981-2016. IFAD 2017.

summer months for 3 regions in the programme area and increased evaporation caused by higher temperatures could have negative impact on water availability leading to longer drought events in the future. Additional in depth climatic and environmental analysis by region is shown in Annex 3.

25. Climate change forecasts for Georgia is derived from 35 available global circulation models (GCMs) used by the Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report<sup>63</sup>. The Climate Change Knowledge Portal (CCKP)<sup>64</sup> of the World Bank presents the IPCC data CMIP5 multi-model in the figure 4.



**Figure 13: Change in annual precipitation (upper left), annual mean Temperature (upper right) and in Mean Monthly Precipitation (lower left) for 2050 compared to 1996-2005 baseline; Maximum Number of Consecutive Dry days (lower right) in Georgia (IPCC-CCKP ).<sup>65</sup>**

26. Future climatic ENSEMBLE models under the scenario RCP8.5 predict higher temperatures in the whole country and less rainfall especially during summer months, with higher probability of drought in those areas with higher maximum number of consecutive dry days. The third communication to the UNFCCC (2014) similarly predicts higher temperature by 2070-2100 for the whole territory. The study also predicts an increasing trend for annual rainfall in the mountainous area until 2050, followed by a decrease except for some areas (Batumi, Pskhu and Mta – Sabueti). Significant decrease of precipitation is expected by 2100 on whole territory of Georgia, mostly in Samegrelo, Kvemo Kartli and Kakheti (22%).
27. According to the Initial National Communication Report to the United Nations Framework Convention on Climate Change (UNFCCC) published in 2014 and the National Adaptation Plan for Agriculture (NAPA) published in 2017, the climate of Georgia is affected by global climate changes and variability. The clearest indicators include:

**Table 1: Climate Change impacts in Georgia**

Resource	Impact
----------	--------

<sup>63</sup> <https://www.ipcc.ch/report/ar5/>

<sup>64</sup> <http://sdwebx.worldbank.org/climateportal/>

<sup>65</sup> World Bank Climate Portal: <http://sdwebx.worldbank.org/climateportal/>

<p><b>Water resources</b></p>	<p>As a result of observations on cattle watering in hot days of summer in Kakheti and Kvemo Kartli it was found that with the growth of temperature (30–38C) a supply of animals with water in June- September decreases every day. In ponds originated from rainwater (which is often a single source of watering) water is gradually decreasing or is generally dried out. The remaining pounds are often subject to pollution due to animal high pressure.</p> <p>The impact of climatic factors on a high-water level of rivers should also be taken into consideration, when rivers often change riverbeds grasping thousand hectares of soil every year, including even territories of populated areas. In such a case old burial grounds of anthrax might be washed off and stripped off, several cases of anthrax in animals were recorded in the south of Georgia in 2013. It was stated that the focus of infection was the soil washed off by the heavy rains in that year.</p>
<p><b>Agriculture and Livestock</b></p>	<p>Current climate change has already influenced cattle breeding. Frequent precipitation, strengthened as a result of warming, causes washing-off of the soil from the slopes, which, against the background of intense utilization of the grass cover, is accompanied by harsh reduction of productivity of mowing and grazing lands.</p> <p>Heat waves, which are projected to increase under climate change, could directly threaten livestock, reducing weight gain and sometimes causing fatal stress. Heat stress affects animals both directly and indirectly; it can increase an animal’s vulnerability to disease, reduce fertility, and reduce milk production in dairy animals.</p> <p>Year 2000 was one of the worst harvest years for wheat due to “great” drought. According to the data of Dedoplistskaro meteorological station, aggregate precipitation in the wheat vegetation period was the lowest value in 1961-2015 period. The drought was further aggravated by increased temperatures. Average temperature for June in 2000 was the highest temperature in 1961-2015 period.</p> <p>Drought in 2014 has significantly damaged grain crops in some municipalities of Kakheti (East Georgia) and has serious negative impact on agricultural production in general.</p>
<p><b>Vegetation and Biodiversity</b></p>	<p>Displacement of natural boundaries at sensitive areas of eastern Georgia (temperature forest ecosystems), loss of resilience of flora and fauna to invasive species, loss of natural ecosystems “corridors” for migration of rare and endemic species, increased cases of forest fires (Summer 2017) degradation of landscape diversity, loss of biodiversity impact on livelihood.</p>

**B. Impact of Climate Change on Urban Infrastructures**

28. Storm-water systems in the Georgia are under-designed in Georgia. Urban development increases the amount of water runoff and localized flooding and flash floods occur in urban areas where there are too few drains, or where their capacity is insufficient to deal with heavy precipitation. Major part of population of Georgia, lands, roads, oil and gas pipelines, hydro technical sites, energy transmission lines and mountain tourism sites periodically suffer with disasters, and area of this threat is being increased constantly. This is confirmed by disastrous processes recorded by geological office on territory of Georgia; increase of the areas damaged or under risk. Besides, great part of populated and urbanized areas of Georgia are in ecologically dangerous zone, where West Georgia is distinguished with active manifestation of disastrous processes.

**C. Knowledge gap**

29. The National Adaptation Plan published in 2017 intends to reduce the knowledge gap on climate related impacts on agriculture. However, even though the document gives us a broad idea on main crops in Georgia, the document is not complete yet and the recommendations for adaptation measures should be strengthened. However, there is an existing knowledge gap for data gathering, which makes challenging to improve the adaptation analysis. As an example, Erosion

risk is well known in Georgia but no recent study on this issue was conducted so far to identify the location and the related adaptation activities. In addition, there is a need to enable systematic quality control of the data used in the analysis. Technical training to share experience and best practice with the deployment of these adaptation practices in similar regions.

## 2. Potential programme's social, environmental, and climate change impacts and risks

30. The coming EU aligned regulations in Georgia may have great adverse impacts on dairy smallholders and may foster families and especially young people to migrate from rural to urban areas. The programme will help targeted households to improve and diversify their livelihoods especially within the dairy sector, and comply with new regulations. The programme activities are gender inclusive and include the most vulnerable rural smallholders (see appendix 2 of the PDR). Indeed, the programme will support, among others, income activities targeting youth and women through matching grants. Those activities are also climate adaptive.
31. Georgia's climate change adaptation strategy is structured around the National Adaptation Plan (NAP) to Climate Change produced by Ministry of Environment and Natural Resources Protection in collaboration with other agencies including IFAD and the Third National Communication to UNFCCC. New strategies to ensure environment management and climate change mitigation and adaptation have been developed. Nonetheless, the country is still facing a major deficit in terms of climate change adaptation.
32. The CC scenario (described in the first chapter of this note) will impact natural resources (forest, pasture, water bodies, others) as well as rural infrastructures such as roads and water points and therefore livelihoods of smallholders and rural people. Neglecting smallholders' adaptation in Georgia will contribute to socio-economic issues such as rural depopulation (Rural population (% of total population) in Georgia was reported at 46.17 % in 2016 and is decreasing) and unemployment (11.8% total population) with possible consequences on the country's stability. The programme has established a clear adaptation strategy that include both investments and training/capacity building practices. In details the programme will ensure adaptation by targeting directly smallholders and institutions (central and local) taking into account the main climatic challenges of the target areas.
33. The described activities will support climate change adaptation to increase the resilience to climate change at household level, improve soil and water management securing higher pasture yield and land productivity, and mitigate the impact of the higher frequency and intensity of increased extreme weather events, such as drought, torrential rainfall/floods and storms. In detail, the programme will ensure land development adaptation to climate for rural people with **climate adaptive activities**<sup>66</sup> by:
- Implementing pasture management pilots
  - Creating Pasture User Associations and Pasture management Plans.

The programme will also support the installation of pilot and showcase technical innovations adaptive to climate change, among others:

- Artificial insemination and crossbreeding
- Fodder production and conservation techniques
- Animal health and welfare practices

The programme will support **climate smart income generating activities**<sup>67</sup>, among others:

- Beekeeping

---

<sup>66</sup> Kindly refer to the annex 4 of PDR for more details.

<sup>67</sup> Kindly refer to the annex 4 of PDR for more details.

- Mushroom production
  - Manure composting and fertilizer production
  - Greenhouses and orchards
  - Agro-tourism
  - Energy saving and climate smart pilots for processing
34. The programme will also support the branding and differentiation of premium mountain dairy products and the formulation and registration of denomination of origin for local premium cottage cheese that will enable small scale processors in mountainous areas to differentiate their products and reach high end niche markets. Furthermore the programme will improve capacities of veterinary services to cope with the possible emergence of exotic diseases from tropical areas and build capacities of small holder farmers and training and coaching of private market actors, ensuring tailored technical assistance provided by business development services provider.

### **3. Environmental and social category (A, B, C)**

35. The programme is considered to be Category B (see annex 4). Overall, the programme is not expected to have any significant adverse environmental or social implications and though there may be some environmental risks associated with rehabilitation of agricultural infrastructure or rural roads, these will have to be in accordance with the new Environmental Assessment Code (June 1, 2017), which enters into effect from January 2018. Thus, the programme will have to comply with the new and improved procedures for environmental impact, Environmental Impact Assessment (EIA) report. The Ministry of Environmental Protection and Agriculture shall provide guidance on the content and preparation of this document.
36. Furthermore, the programme aims at increasing natural resource management and reduce overexploitation of land, pasture and resources. The proposed programme will enhance social cohesion due to the strengthening of the value chains and will contribute to environmental conservation and sustainability because of its emphasis on the rehabilitation of degraded land, the introduction of new management and maintenance practices and technologies and the reduction of anthropic pressure on graze lands and pastures. The proposed programme will strictly follow the existing environmental laws and regulations applicable in the country and represents a NRM oriented approach to using natural capital available in Georgia. The programme is designed to enhance sustainable and resilient business opportunities of vulnerable rural households through climate-smart natural resource management promoting the territory and its environmental integrity as main driver of local economy (see Appendix 4)

### **4. Climate risk category (High, Moderate, Low)**

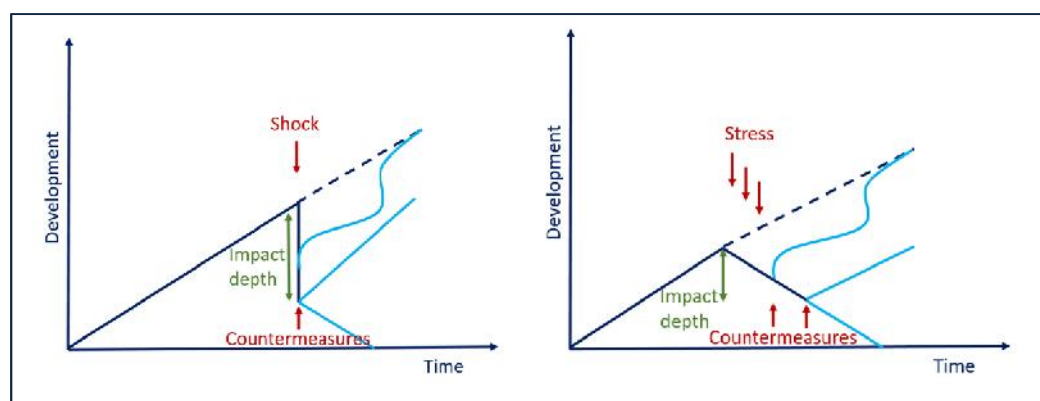
37. The programme's climate risk classification is: moderate (see annex 4). Based on assessments undertaken during preparation of the concept note and detailed design, the programme is expected to be moderately sensitive to climate risks, mainly due to the exposure of Georgia agriculture sector to expected changes in temperature and rainfall. However, a key aim of the programme will be to reduce the vulnerability of the rural poor to those risks and programme's funds are allocated to ensure climate adaptation and resilience of both infrastructures and livelihood strategies of rural poor. Furthermore, the programme is in the process of accessing funding from the Adaptation Fund. Also, Green Climate Fund and Global Environment Facility financing are under consideration and may reinforce programme adaptation and resilience activities.

### **5. Recommended features of programme design and implementation**

38. The programme is applying a resilience model to identify adaptation actions to be supported and develop a scorecard to monitor changes in resilience for programme targeted households. The population's future well-being in the Georgia depends on the resilience of communities, cities and eco-systems, and resilience provides a critical point of integration for adaptation strategies. Building resilience is about the suitable actions taken at present time so that the impact of inevitable shocks and stresses are minimized and the rebound accelerated.

39. Resilience is the ability to cope with adverse shocks and stresses, and to adapt and learn to live with changes and uncertainty. The ‘ability to resist, recover from, or adapt to the effects of a shock or a change’<sup>68</sup>. ‘Resilience is a long-term approach, not only focussed on the ability to bounce back but also integrating adaptation and transformation while undergoing change’<sup>69</sup>. Indeed, building resilience delivers near-term economic benefits and jobs, while making everyone better prepared when a shock hits. There may be upfront costs to get this done, but money will be saved later: It costs sometimes more to rebuild in the wake of a disaster than to build in a way that can withstand the shock. Resilience can be approached at different levels, such as at the level of agroecosystems or productive territories, countries, communities or families, and facing different crises and shocks.
40. To a great extent, increasing resilience can be achieved by reducing vulnerabilities and increasing adaptive capacity. This can be achieved by reducing exposure, reducing sensitivity and increasing adaptive capacity, for every type of risk. The programme uses a resilience model focused on vulnerable rural families. This model helps to define the strategies of programme interventions to support the vulnerable rural in improving the management of natural resources and adaptive capacities to climate change.
41. The model followed in the programme is based on an identification and grouping of factors that contribute to the households’ capacities to face climate related stresses and shocks, reducing their effects and to recover quickly avoiding persistent adverse effects. The model is explained in more detail in the following figure.

**Figure 4: Impacts of shocks and stresses (green lines) on development pathways (black and blue lines) depending on different levels of resilience**



42. The figure above illustrates how the factors and countermeasures associated contribute to the resilience of households according to their influence on:
- the depth of the impact (in green) that shocks (left graph) and stresses (right graph) have on households;
  - the ability of households to recover (in blue) after a shock (left graph) or adjust to stresses (right graph).
43. The depth of the impact depends on factors such as; i) management of natural resources; ii) diversification of crops, income, and livelihoods; iii) quality of the diet (health); iv) road access and transportation and other services; v) quality and location of assets (infrastructure, fields an equipment); vi) existence of an early warning system and prevention strategies; vii) membership in social networks and/or producer organizations; viii) knowledge and skills to understand climate trends, risks and potential impacts on livelihoods and effectiveness of available adaptation options.
44. On the other hand, the capacity and speed of recovery and adjustments depends on factors such as: i) savings; ii) access to credit; iii) insurance (where life, health, home insurance, etc. are generally more or just as important as agricultural insurances); iv) the effectiveness of public (and

<sup>68</sup> IDS, 2012 - Resilience: New Utopia or New Tyranny?

<sup>69</sup> BC3, 2011 – Multidisciplinary perspectives on urban resilience

private) auxiliary response programs; v) road access; vi) capacity to access new technologies and adopt them in livelihood activities; and again vi) membership in social networks and/or producer organizations.

45. In figure 4 above the light blue lines illustrate different scenarios of impact and recovery according to the presence or not of the resilience factors and countermeasures. When a stress or shock occurs, the depth of the impact may vary and the recovery may bring the households to a different level of welfare compared to the initial state depending on the factors of resilience. Finally, a systematic learning process after a crisis or shock or as part of evaluating the effectiveness of implemented approaches to cope with increased stresses, is an additional factor in strengthening the resilience to reconstruct and adopt each time something better based on the lessons learned.

### **A. Social and environmental management plan**

#### **Geographic targeting**

46. The DiMMA activities will be limited to three regions: Imereti, Samegrelo-Zvemo Svaneti, and Samtskhe-Javakheti (out of nine regions and one autonomous republic). Half of all country's holdings with dairy cows reside in three DiMMA target regions. In each region, the programme will seek to select the areas with the highest incidence of poverty. Other criteria for final village selection include beneficiary interest, the existence of potential pasture land to be managed, opportunities for linking products to markets (particularly for progressive farmers, service providers), and high potentials for reducing climate change vulnerabilities and generating adaptation benefits. Also, in the selection of the pasture user associations and their land, the programme will seek to identify the most vulnerable villages and with pasture land which contiguous to other PUAs, in order to allow for a more landscape-based approach, especially in summer pasture. Further details are available in the Appendix 2 of the PDR, Targeting measures - Geographic targeting.

#### **Selection of adaptive activities**

47. Appendix 4 of this PDR describes in details the implementation arrangements and planning process in selected clusters to identify resilient pasture management approaches and practices and how this process will take into account the inclusion of more vulnerable and poor households, and adaptation measures and activities to address current and future climate change and variability risks. The programme will establish three financial facilities to enable implementation of the programme components. The management of the Dairy Value Chain Development Facility (DVCF) will be entrusted to the Agriculture Programme Management (APMA) and is aligned with IFAD's social, environmental and climate policies in its selection and supervision procedures. DVCF activities will be demand driven, the BP for each sub-programme will need to be assessed from a SECAP perspective during the application/evaluation process. The same applies to financial services from other sources such as banks and MFIs. The SECAP considerations are included in the Appendix 4 Annex 1: proposed criteria for selection of farmers and aggregators for establishment of value chain clusters (DVCF).
48. The different interventions, land development and related adaptation measures to be included in the programme's activities are presented in appendix 4. This initial selection of activities was done during the two design missions jointly with the MEPA after meeting with other agencies, NGOs and producers associations. The selection covers a broad set of systems present in Georgia as well as new systems and approaches proven to have high adaptation benefits and which needs to be further up-scaled.

#### **Systematic monitoring of adaptation benefits and resilience**

49. The planning will identify the interest of the farmers in participating in the demonstrations and monitoring of the production, economic and resilience benefits of the dairy and pasture development approaches implemented. Results of the demonstration will be showcased and visits will be arranged for farmers and other stakeholders. Capacity building will also be provided to



those demonstration farmers and to all the value chain actors. The system aim to give more options to farmers and in doing so increase their resilience to market and climate variability.<sup>70</sup>

50. The matrix below identifies the risks and vulnerabilities of rural households, activities that may be included in pasture, dairy and small entrepreneurship development to address these, and the questions proposed for the scorecard to monitor the increase in household resilience (see section 8 below in this appendix and the Monitoring and Evaluation appendix 6 section B in this PDR).

Risks and vulnerabilities	Programme supported activities	Tentative questions for the resilience scorecard
Georgian law aligned with EU regulations on dairy products will affect dairy value chain in Georgia.	Sensitization and Capacity building of all dairy value chain actors. Training “technical and Business”  Organization of the value chain : - Community mobilization - Cluster organization - Mechanization services - Business & Market Development - Milk collection and processing  On-farm demonstrations and capacity building.	1. Can you explain how the new regulations will affect your production and access to market?  2. Are you part of a cooperative or group of pasture users?  3. Have you participated to demonstration of adaptive practices?  <i>If yes,</i>  3b. Have you adopted adaptive practices in the last 5 years?
New regulations on dairy products may severely affect smallest dairy farmers unable to comply with quality demand.	Adaptation Facility, pasture management and diversification activities.  Organization of farmers in cooperatives and associations. Technical support for farmers and services providers.	4. Can you explain what options of adaptation practices and changes in your production system you can and/or may implement to address regulation changes?
Lack of institutional pasture land tenure may create tension between farmers	Organisation of Pasture user groups at cluster level.  Demonstration of improved feed practices and pasture management.  Enabling environment through policy platforms.	6. Has DiMMA programme supported you in creating a Pasture user association?  <i>If yes</i>  6b. Has DiMMA programme supported you in developing legally registered pasture land to your PUA? Do you think your PUA will be able to manage this pasture sustainably? (why, why not?)  7. Since you started to implement pasture management activities supported by the DiMMA programme, has there been any progress noted in productivity and/or livelihood?
Risk of droughts and water scarcity during summer months as the amount of	4500 ha - Pasture sustainably managed. Promoting animal health and	8. Does the pastoral area have sufficient access to water resources (stored in soils, water points) to cover

<sup>70</sup> For more details, kindly refer to the Appendix 4, component 1.1.

<p>rainfall decreases in some areas, snow cover declines, and extreme temperatures rises.</p>	<p>welfare.  Rehabilitation/establishment of water points.  Adaptation Facility supports climate smart income generating activities as beekeeping, mushroom production, orchards and compost fertilizer from manure.</p>	<p>the needs of the production and grazing livestock during the dry season?   9. Is your business supported by the DiMMA Adaptation Facility constrained by insufficient access to water?</p>
<p>Lack of water in summer pasture for livestock, gathering of animals at strategic locations, increasing pollution of streams. In winter, concentration of cattle manure in barn and pollution of soils and close streams.</p>	<p>Creation of pasture user associations and pasture management plans.  Support of manure management and compost activities.  Rehabilitation and installation of water points in pastoral areas.  Water management measures e.g. fences for shade, measures to retain water in soil, drainage, riverine and water spring restoration, protection and shade through reforestation in water points.</p>	<p>10. Have you implemented manure management in your village/community?   11. Does the DiMMA programme installed water points in pastoral areas?   <i>If yes</i>   11b. Do you notice an improvement on milk productivity and animal health?</p>
<p>Intensification of storms and heavy rainfall events may affect pasture land, increasing erosion, loss of soils and water runoff.</p>	<p>Creation of pasture user associations and pasture management plans.  Restoration of degraded pastures through rotation and fencing, and improvement of vegetation cover</p>	<p>12. Have you introduced any practice to improve the fertility and water storage capacity of your soils, reducing erosion and water run-off?   <i>If yes</i>   12b. Have you observed any improvement in the yields of your pastoral land/crops by using these practices?</p>
<p>Climate variability can stimulate emergence of diseases.</p>	<p>Provision of inputs, including concentrate feed and veterinary drugs. Production of quality fodder will be a key priority in the programme approach. Provision of veterinary services, including preventive health care, to reduce the impact of production diseases such as mastitis, and parasites. Improved in-barn conditions for animal welfare.</p>	<p>13. Do you have access to sufficient veterinary services and medicines to cover your production needs?   14. Do you notice an improvement in animal health and a better treatment of common cattle infections (e.g. brucellosis, mastitis)?</p>
<p>More productive cattle breeds imported in Georgia not adapted to environment and climatic conditions.</p>	<p>Artificial insemination campaign and veterinary services improved.  Provision of artificial insemination services, using semen of improved breeds adapted to local conditions.</p>	<p>15. Have you benefited from AI campaign (information, assistance) in your village/community from DiMMA programme?   <i>If yes</i>   15b. Have you observed any improvement in the milk production and animal health by using these practices?</p>

## 6. Analysis of alternatives

51. During the design, alternatives for dairy production value chains have been analysed with IFAD consultants and Ministries to come up with a broader selection of activities around the dairy sector to diversify and enhance livelihoods of targeted households increasing their resilience (sub-component 1.3). Also, the programme discussed the practices used toward environmental resources, especially in pastoral areas. The programme includes sustainable pasture management activities including creation of Pasture Users Associations and pasture management plan (sub-component 2.1), and piloting pasture and manure management (sub-component 1.1) for testing and monitoring with farmers, identify adaptation benefits and disseminate good practices.

## 7. Institutional analysis

52. Georgian legislation comprises various laws and international agreements. Along with the national regulations, Georgia is signatory to a number of international conventions related to environmental and social protection. The Constitution of Georgia (1995, last amended in 2013) lays down the legal framework that guarantees environmental and social protection, and public access to information with regard to environmental conditions.

53. The **Ministry of Economy and Sustainable Development of Georgia (MoESD)** is the competent authority for implementing and enforcing environmental legislation and policy, including the requirements relating to EIA since the recent merging of the Ministry of Environmental and Natural Resources Protection (MoENRP), previous Ministry in charge of environmental aspects, within the MoESD and the Ministry of Environmental Protection and Agriculture (MEPA). In addition to the MoESD and MEPA, a number of other ministries, departments and agencies are responsible either directly or indirectly for the implementation of environmental and social related legislation and policy, including:

- Ministry of Health, Labour, and Social Affairs of Georgia.
- Ministry of Regional Development and Infrastructure of Georgia.
- Ministry of Environmental Protection and Agriculture of Georgia.
- Ministry of Culture and Monument Protection of Georgia.

## Institutional framework

54. **MoESD** has an important role in the supporting agricultural development as well as pastures through its role in overseeing land management policies in general and the process of privatization of state owned lands as well as their registration in specific. One of the most important goals of the Ministry is to support sustainable development of the country in the field of environment, to elaborate and implement state policy and international commitments within its competence.

55. **The low emission development strategies (LEDS)** implies the development strategic plans at national level to support reduction of the greenhouse gas (GHG) emissions in the process of economic growth. On 26 July 2013 Georgian Government issued the resolution on setting up high level inter-ministerial committee and LEDS and its working group, headed by the MoESD. The program aims at supporting developing countries' efforts to pursue long-term, transformative development and accelerate sustainable, climate-resilient economic growth while slowing the growth of greenhouse gas emissions.

56. **Ministry of Energy** of Georgia implements State Energy Policy for Georgia, participates in the development of strategies and programs that address the priorities in the energy sector, monitors their implementation, and works out appropriate recommendations. The Ministry structure includes the Department for Energy Efficiency and Renewable Energy.

57. The core function of the **Ministry of Agriculture** (MEPA) is to develop and implement a unified government policy on the development of agricultural sector of Georgia. Along with other issues, the Ministry is in charge of agro-production, agro-processing, land conservation and productivity improvement, crops, livestock, fisheries, agro-engineering and veterinary, as well as promotion of upgrade and accessibility of agricultural technology. Since the merging of the MoENRP with the MEPA, it can play a key role in supervising environmental projects funded by international funds, providing implementation support to enhance impact.

58. **Ministry of Regional Development and Infrastructure (MRDI)** is in charge of regional development policies in addition to overseeing the development of the infrastructure, including water, roads and others. In terms of agricultural development and pastures management, MRDI provision of needed infrastructure to farmers. To date, the municipalities are in charge of issuing pastures lease contracts to shepherds on their pastures; municipalities are also aiming at acquiring state land in order to further improve their revenues. The leasing is made mostly according to cadastral zoning, but occasionally, it can follow local customary grazing habits; this could include managing pastures outside the cadastral areas of the municipality.

#### **Capacity development**

59. Following the National Adaptation Plan for Agriculture (MoENRP, 2017), Relevant government institutions have limited systems, capacity and expertise to address challenges related to climate change efficiently as this is quite a new challenge in the country. The programme considers capacity development and institutional strengthening two pillars of its theory of change. Both component will ensure capacitation of both institutions and beneficiaries. The objective of the process is to reduce the climate change adaptation deficit in rural areas. The programme will ensure capacitation in the following domains: i) capacity building of technical offices of rural municipalities and villages to ensure climate resilience of infrastructures and services; ii) capacity development of smallholders, associations and institutions in the field of natural resource management, sustainable livestock management systems including pasture management and other key topics.

#### **Additional funding**

60. The programme is funded by IFAD loan to support dairy production in Georgia considering Climate Change adaptation practices and to ensure a rational and sustainable use of available natural resources. Additionally, the programme is developing a proposal to obtain funding from the Adaptation Fund. Furthermore, the programme may also be complemented by funding from GEF7 or GCF.

#### **8. Monitoring and Evaluation**

61. The Monitoring and Evaluation recommendations are described in the Annex 6 of the PDR: "Planning, M&E and learning and knowledge management".
62. A special attention to the geo-referencing methodology for monitoring is advised. The PMU staff (M&E Officer) and implementer partners should be trained at start up and at the beginning of programme implementation to collect GPS information for all activities within the components of the programme. The M&E Officer (and other PMU staff if needed) should also be trained to use the GPS data collected with GIS software, to create maps and to analyse changes in time. The monitoring will be focused on vegetation index for activities related to pasture management and on the construction of infrastructure (roads, water points ...) through satellite imagery (i.e. Landsat, Sentinel) and pictures taken on the field before and after the activities. The geo-referenced information should be gathered in a KMZ file (Google Earth) by component and subcomponent. . As reported in the PDR the whole programme will be georeferenced as was its design.

#### **9. Further information required to complete screening, if any**

63. In addition to the present note, the following tools have been designed and shared with the mission:

Google Earth Package Including the following maps, data and analysis;

- Remote Sensing Analysis of (I) Vegetation, (II) Climate trends
- Administrative Boundaries
- Soil Map
- Pasture and forestry area map
- Mountainous areas' map
- Global Agro-ecological Zones (GAEZ)
- Potential Water Erosion map (under study)
- Map of Roads (2010)

- Georgia's Digital Terrain Model (DTM – 2017))
- Georgia's Slope (%) Map (2017)
- Map of visited Sites and Villages (2017)
- Watersheds' map (2017)

#### Remote Sensing Climate Trends (1981-2016) Analysis

64. No further information is required.

#### 10. Budgetary resources and schedule

65. No further budget is required to develop the SECAP note. Adaptation Fund proposal is being developed. GCF and GEF additional funding are under consideration.

#### 11. Record of consultations with beneficiaries, civil society, general public etc

66. The team met with farmer associations, NGOs, and other potential beneficiaries of DiMMA on their land. The visited places during design are presented in the figure 5 below.

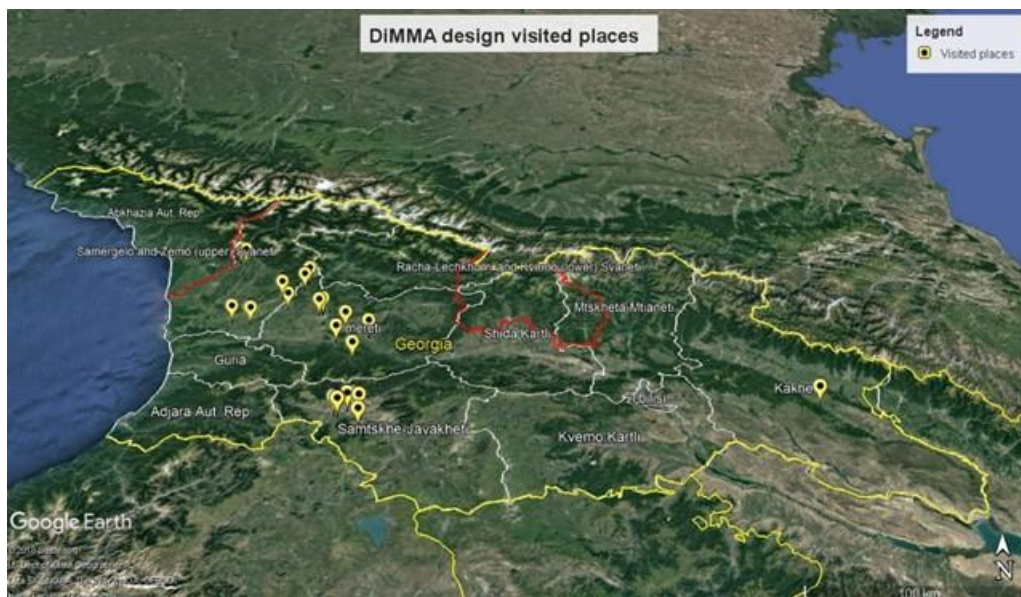
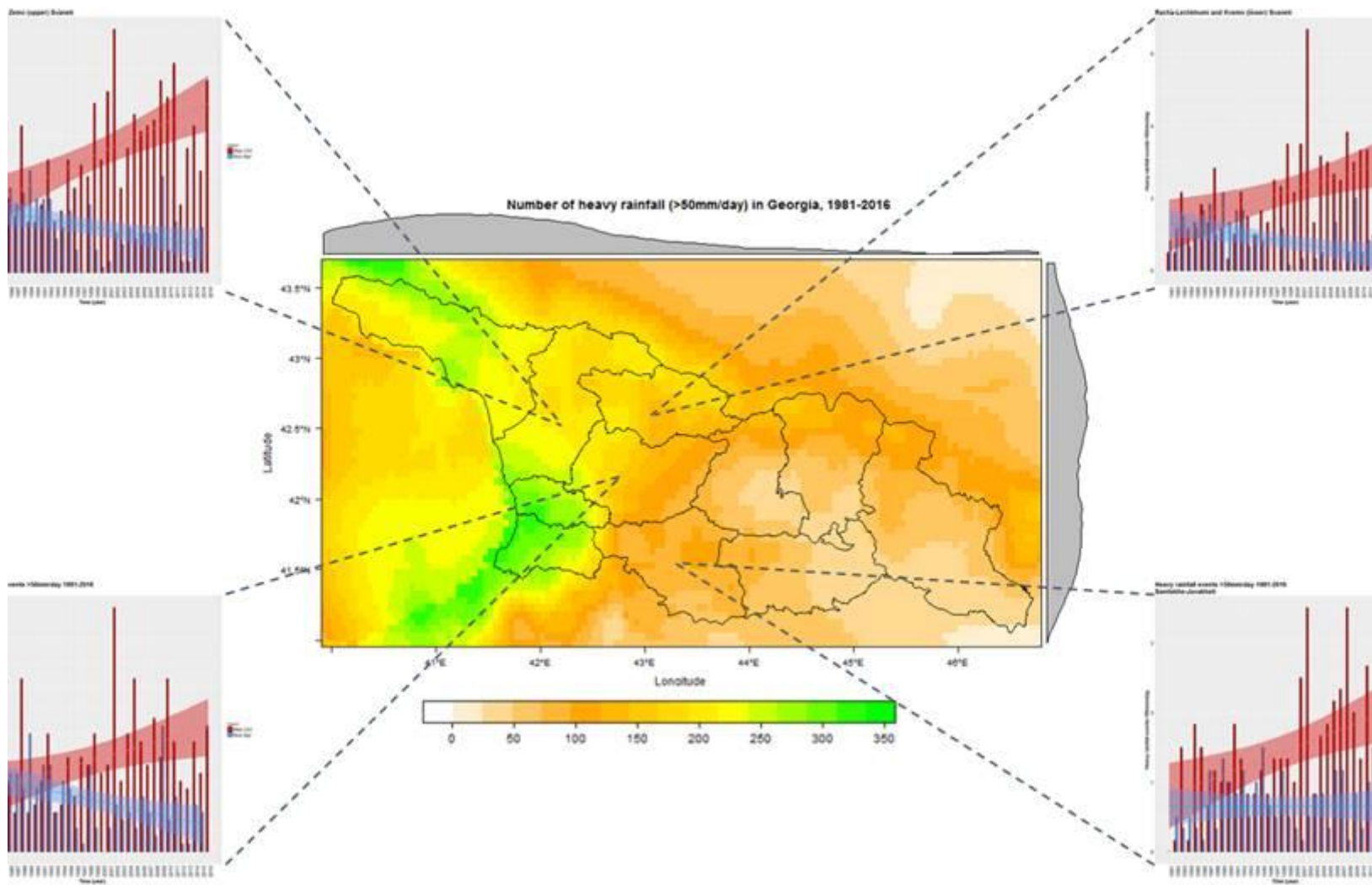


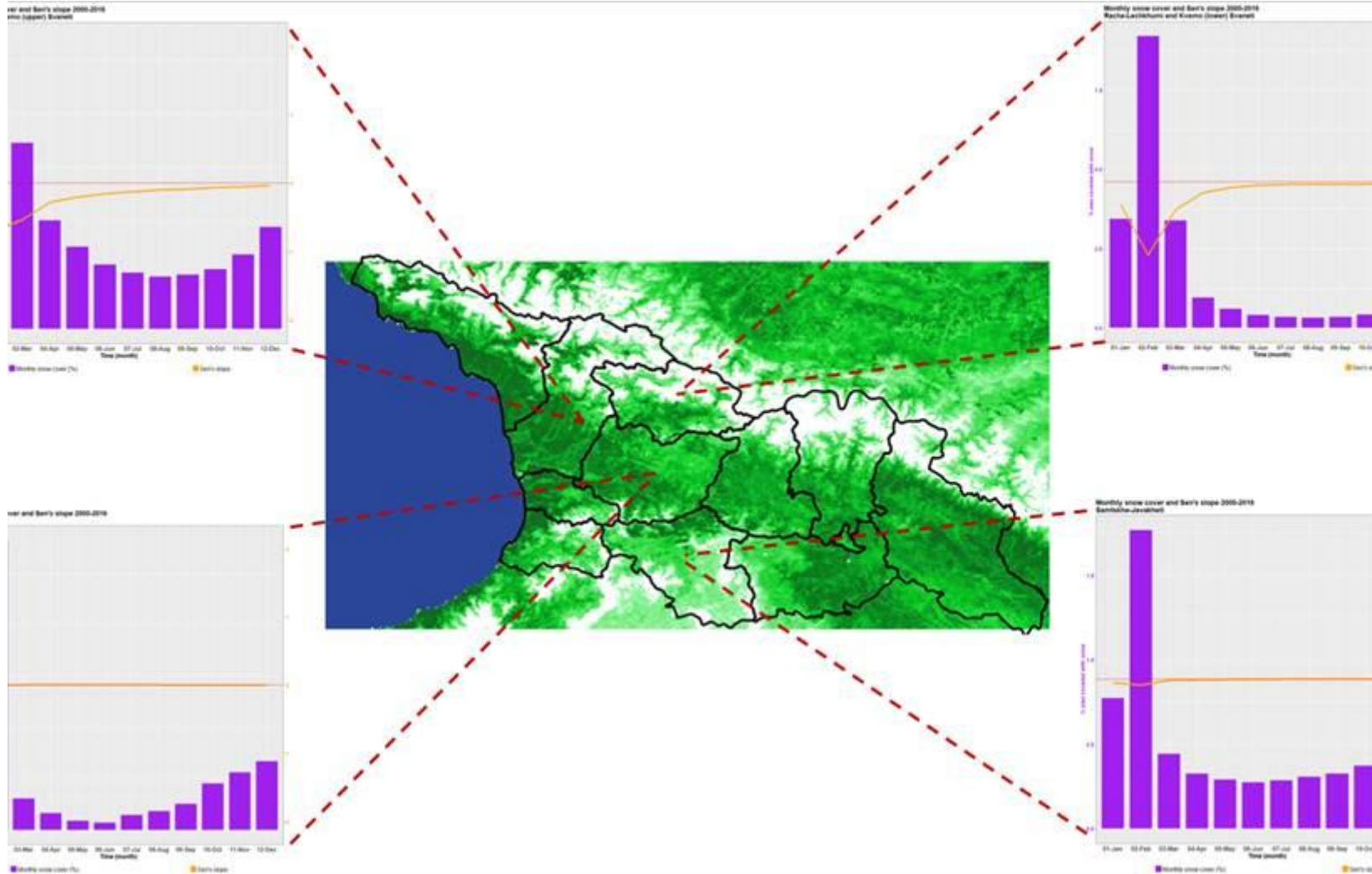
Figure 5: Visited places during Design

67. For further information kindly refer to the PDR.

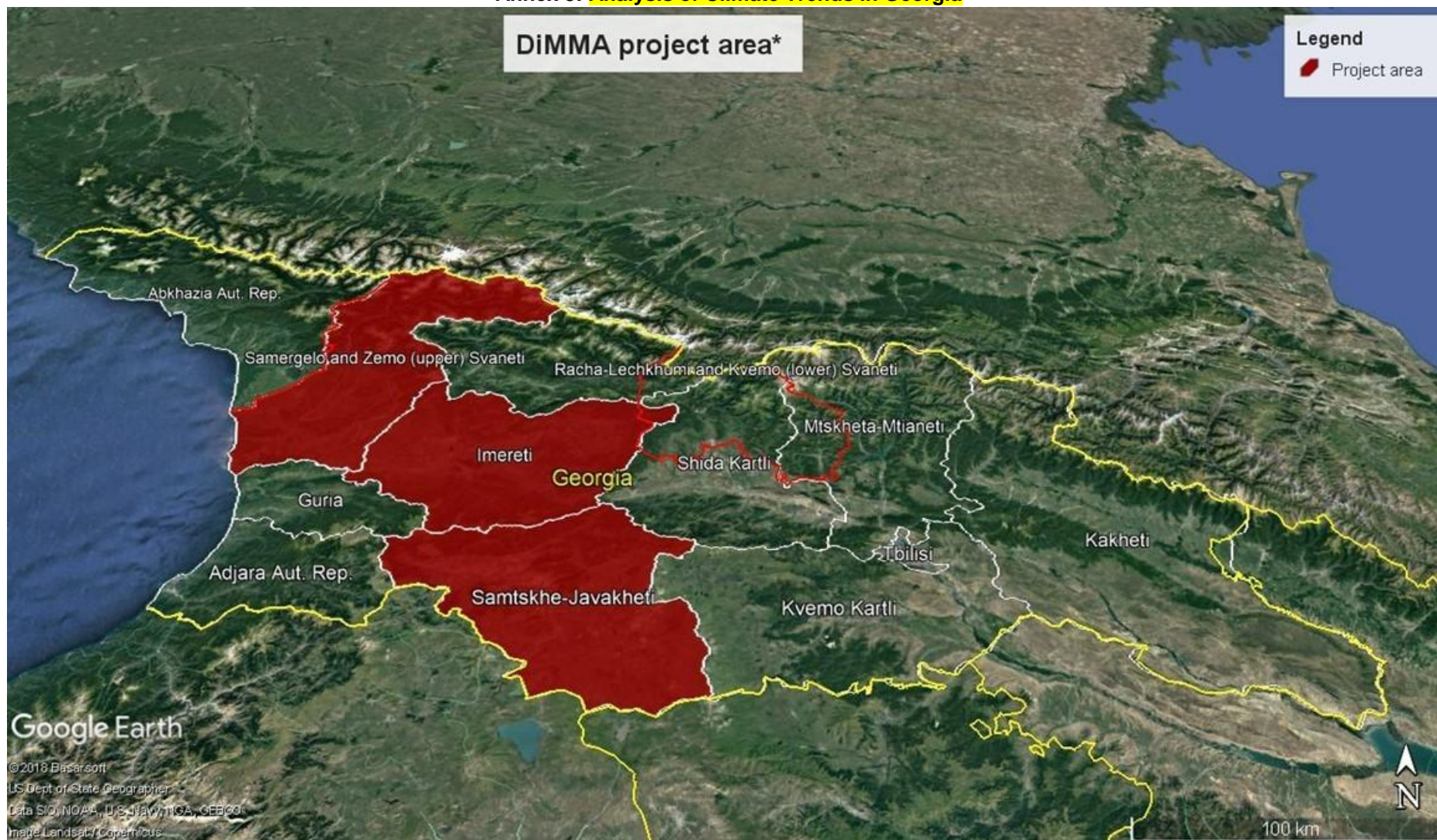
**Annex 1: Number of heavy rainfall events (>50mm/day) in Georgia for the period 1981-2016**



**Annex 2: Snow cover in Georgia for the period 2000-2016**



Annex 3: Analysis of Climate Trends in Georgia



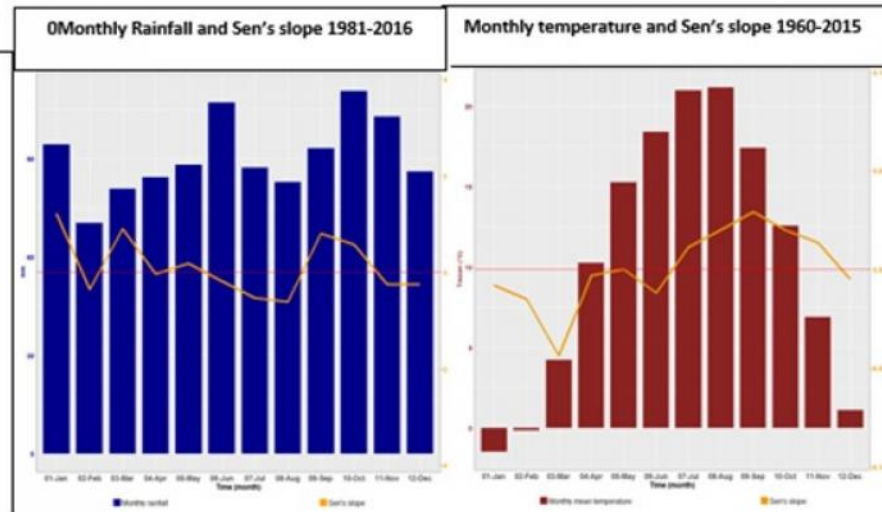
\*The programme area does not include national parks and protected areas.



## Imereti



**Area:** 6,414 (6,479 w South Ossetia) km<sup>2</sup>  
**Population:** 532,900  
**Pop. Density:** 83.07 /km<sup>2</sup>  
**Unemployment Rate:** 10.8%  
**Annual crop area:** 151,900 ha  
**Cattle (ths. heads):** 171.4 (93.2 dairy)  
*Source: Geostat 2016*  
**Average Altitude MASL:** 697m  
**Percent of land above 800m:** 36.6%  
**Percent of land above 1500m:** 9.4%  
**Slope:** 45.6% (>10°)



### Past climatic data

#### Rainfall

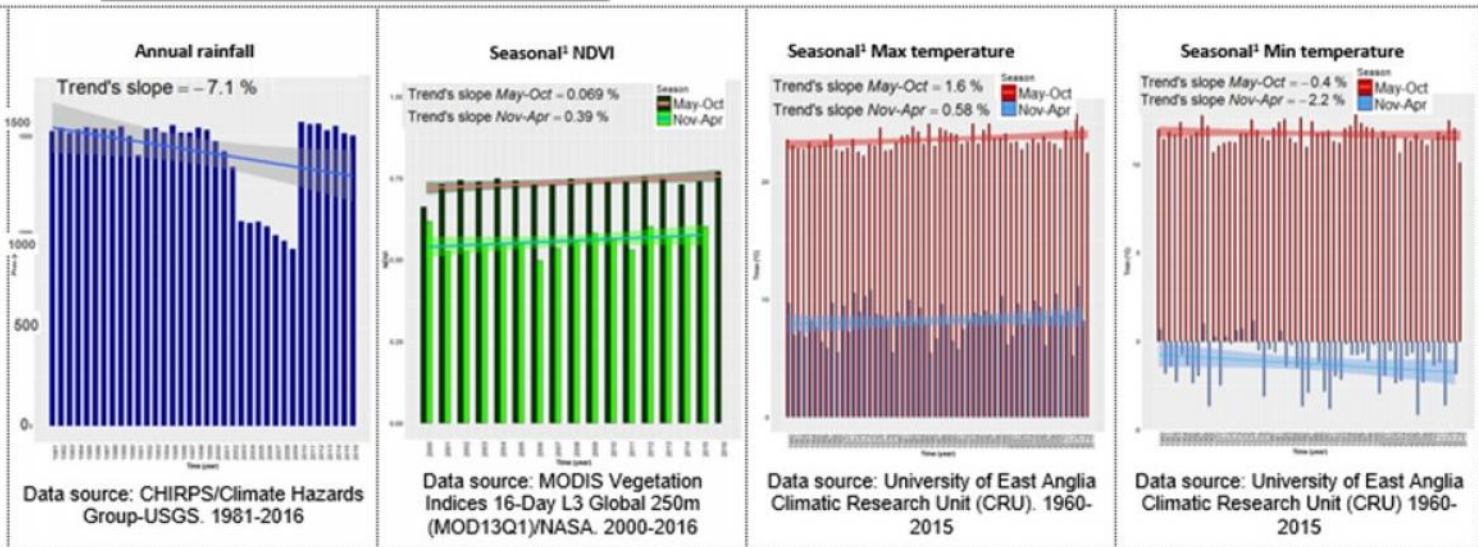
The trend of annual rainfall is around 1400mm/y, is decreasing on time (not significant) and has dropped drastically from 2003 to 2009. Monthly rainfall seems to decrease over time in summer and increase in Sept-Oct, January and March.

#### Temperature

Average temperatures go from -2 °C in winter up to 22 °C in summer. The trend of max temperature is increasing for both seasons and is significant for May-Oct season. The trend of min temperature is decreasing especially during Nov-Apr period (not significant). Indeed, the monthly mean temperature is increasing over time for the majority of the summer months and decreasing in winter.

#### NDVI<sup>2</sup>

The trend of the vegetation index for both seasons is increasing over time but is not significant.



### Possible Impacts

Variability in water availability (e.g. 2003-2009) combine with hot summers, could directly threaten livestock, reducing weight gain and sometimes causing fatal stress. Heat stress could affect the cattle population both directly and indirectly; it could increase their vulnerability to disease, reduce fertility, and reduce milk production in dairy cattle. Summer pasture in the highland should benefit from longer vegetation period but decrease in summer rainfall could lead to droughts and affect forage and pasture productivity. Drought reduces the amount of quality forage available to grazing livestock, and prolonged drought can permanently degrade rangelands and increase erosion and mudflow if followed by heavy rainfall period.

<sup>1</sup>Season 1: May to October – Season 2: November to April.

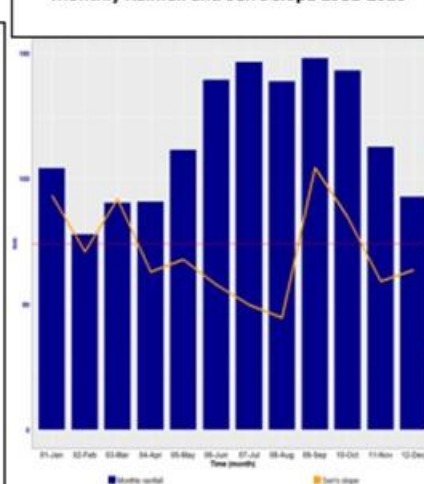
<sup>2</sup>The NDVI is a measurement of the balance between energy received and energy emitted by objects on Earth. When applied to plant communities, this index establishes a value for how green the area is, that is, the quantity of vegetation present in a given area and its state of health or vigour of growth. The NDVI is a dimensionless index, so its values range from -1 to +1.

### Samergelo and Zemo (upper) Svaneti

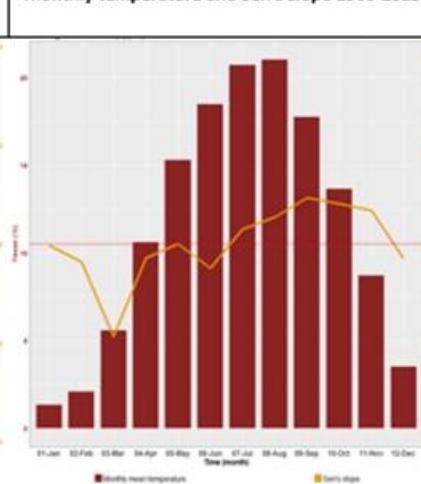


**Area:** 7468.2 km<sup>2</sup>  
**Population:** 329,700  
**Pop. Density:** 44.15 /km<sup>2</sup>  
**Unemployment Rate:** 10%  
**Annual crop area:** 120,800 ha  
**Cattle (ths. heads):** 190.8 (98.8 dairy)  
*Source: Geostat 2016*  
**Average Altitude MASL:** 1224m  
**Percent of land above 800m:** 54.2%  
**Percent of land above 1500m:** 43%  
**Slope:** 54.2% (>10°)

Monthly Rainfall and Sen's slope 1981-2016



Monthly temperature and Sen's slope 1960-2015



#### Past climatic data

##### Rainfall

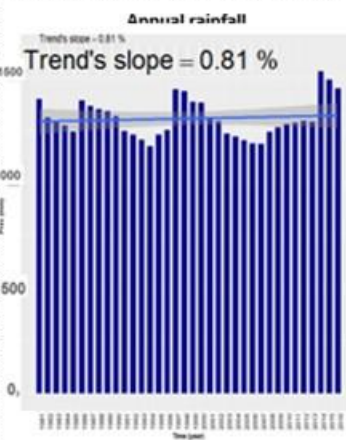
The trend of annual rainfall is stable in time from 1981 and is around 1450mm/y. Monthly rainfall seems to decrease over time during May-Aug and Nov-Dec periods and increase at the end of winter and at the beginning of autumn.

##### Temperature

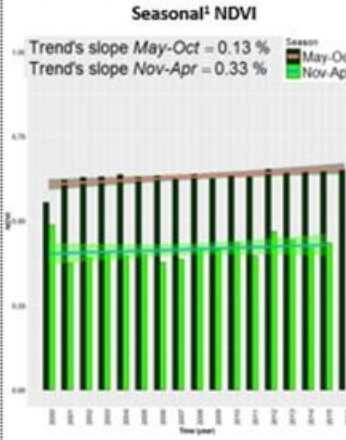
Average temperatures go from 2 °C in winter up to 22 °C in summer. The trend of max and min temperatures seems to increase and decrease respectively for both seasons, but neither of them significantly. Even though it is noted that temperature is increasing for the months of Jul to Nov and mostly decreasing for the rest of the year since 1960.

##### NDVI<sup>2</sup>

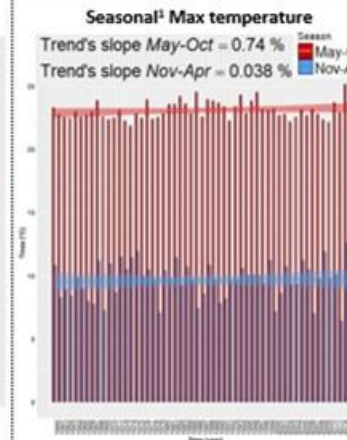
The trend of the vegetation index for both seasons is increasing significantly.



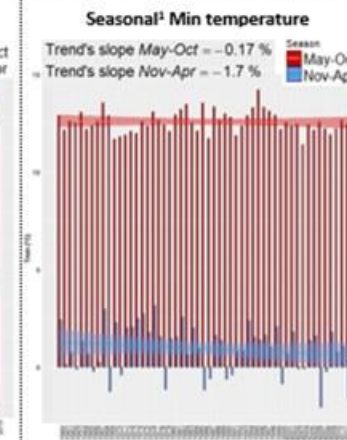
Data source: CHIRPS/Climate Hazards Group-USGS. 1981-2016



Data source: MODIS Vegetation Indices 16-Day L3 Global 250m (MOD13Q1)/NASA. 2000-2016



Data source: University of East Anglia Climatic Research Unit (CRU). 1960-2015



Data source: University of East Anglia Climatic Research Unit (CRU) 1960-2015

#### Possible Impacts

Variability in water availability during summer months could directly threaten livestock, reducing weight gain and sometimes causing fatal stress. Summer pasture in the highland should benefit from longer vegetation from higher temperature in summer and at the end of autumn but decrease in summer rainfall can lead to droughts and may affect forage and pasture productivity. Drought reduces the amount of quality forage available to grazing livestock, and prolonged drought can permanently degrade rangelands and increase erosion and mudflow if followed by heavy rainfall period and increase erosion and mudflow if followed by heavy rainfall period (Sept-Oct) especially in this region where more than half of the territory is high slope.

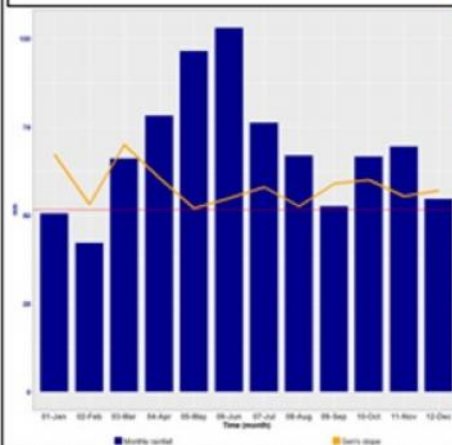
<sup>1</sup>Season 1: May to October – Season 2: November to April. <sup>2</sup>The NDVI is a measurement of the balance between energy received and energy emitted by objects on Earth. When applied to plant communities, this index establishes a value for how green the area is, that is, the quantity of vegetation present in a given area and its state of health or vigour of growth. The NDVI is a dimensionless index, so its values range from -1 to +1.

## Samtskhe-Javakheti

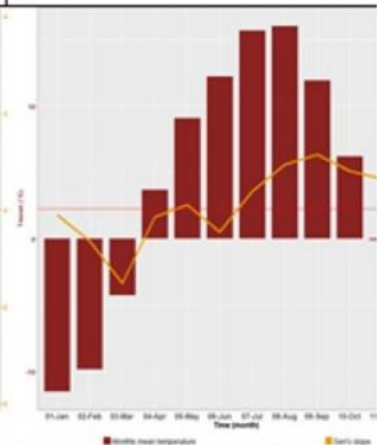


Area: 6,412 km<sup>2</sup>  
 Population: 160,500  
 Pop. Density: 25 /km<sup>2</sup>  
 Unemployment Rate: 4.1%  
 Annual crop area: 271,800 ha  
 Cattle (ths. heads): 116.2 (61.2 dairy)  
*Source: Geostat 2016*  
 Average Altitude MASL: 1865m  
 Percent of land above 800m: 99.86%  
 Percent of land above 1500m: 78.6%  
 Slope: 42.6% (>10°)

Monthly Rainfall and trends 1981-2016



Monthly temperature and Sen's slope 1981-2016



### Past climatic data

#### Rainfall

The trend of annual rainfall is around 900mm/y and doesn't show any significant change in time from 1981 although we can note a slight increase. Monthly rainfall shows more rainfall in May-June and seems to increase in the beginning of Spring and in Winter.

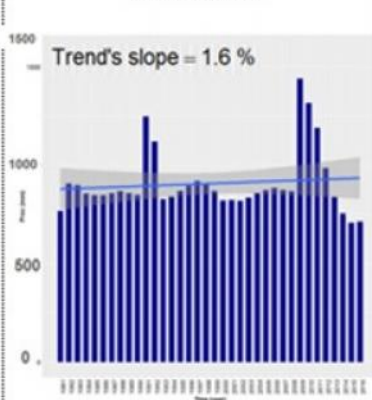
#### Temperature

Average temperatures go from -12 °C in winter up to 19 °C in summer. The trends of max temperature seem to increase for both seasons and is significant for May-Oct season. At the contrary trend of min temperature is decreasing. Indeed, we can see that the monthly mean temperature is increasing in summer and decreasing in winter over time.

#### NDVI<sup>1</sup>

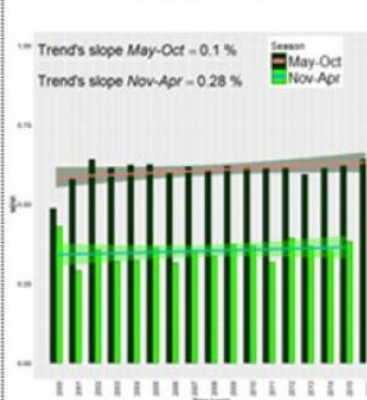
The trend of the vegetation index for both seasons is quite stable, slightly increasing.

Annual rainfall



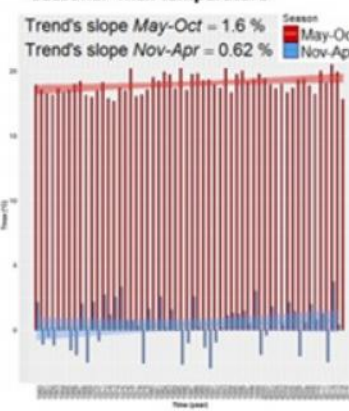
Data source: CHIRPS/Climate Hazards Group-USGS. 1981-2016

Seasonal<sup>1</sup> NDVI



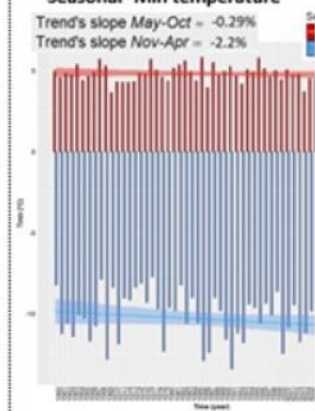
Data source: MODIS Vegetation Indices 16-Day L3 Global 250m (MOD13Q1)/NASA. 2000-2016

Seasonal<sup>1</sup> Max temperature



Data source: University of East Anglia Climatic Research Unit (CRU). 1960-2015

Seasonal<sup>1</sup> Min temperature



Data source: University of East Anglia Climatic Research Unit (CRU). 1960-2015

### Possible Impacts

Hotter summers, could directly threaten livestock, reducing weight gain and sometimes causing fatal stress if there is no sufficient water availability or shelter. Heat stress could affect cattle population both directly and indirectly; it could increase their vulnerability to disease, reduce fertility, and reduce milk production in dairy cattle. Summer pasture in the highland most of Samtskhe-Javakheti territory should benefit from longer vegetation period and increase the production of fodder when water is available, as observed with the NDVI slightly increasing in summer. More extreme events in rainfall and in temperatures could also affect the soil and increase erosion risk and mudflow.

<sup>1</sup>Season 1: May to October – Season 2: November to April.

<sup>2</sup>The NDVI is a measurement of the balance between energy received and energy emitted by objects on Earth. When applied to plant communities, this index establishes a value for how green the area is, that is, the quantity of vegetation present in a given area and its state of health or vigour of growth. The NDVI is a dimensionless index, so its values range from -1 to +1.



### Annexe 4 – Questions to guide the screening on environmental, social and climate risks

GUIDING QUESTIONS FOR ENVIRONMENT AND SOCIAL SCREENING	Yes/ No	COMMENTS/EXPLANATION
<b>CATEGORY A – THE FOLLOWING MAY HAVE SIGNIFICANT AND OFTEN IRREVERSIBLE OR NOT READILY REMEDIED ADVERSE ENVIRONMENTAL AND/OR SOCIAL IMPLICATIONS.</b>		
<b>Programme location</b>		
1. Would the programme develop any wetlands? (Guidance statement GS1)	No	
2. Would the programme cause significant adverse impacts to habitats and/or ecosystems and their services (e.g. conversion of more than 50 hectares of natural forest, loss of habitat, erosion/other form of land degradation, fragmentation, and hydrological changes)? (GS 1, 2 and 5)	No	
3. Does the proposed programme target area include ecologically sensitive areas, areas of global/national significance for biodiversity conservation and/or biodiversity-rich areas and habitats depended on by endangered species? (GS1)	No	
4. Is the programme location subjected to major destruction as a result geophysical hazards (tsunamis, landslides, earthquakes, volcanic eruptions)?	No	
<b>Natural resources</b>		
5. Would the programme lead to unsustainable natural resource management practices (fisheries, forestry, livestock) and/or result in exceeding carrying capacity. For example, is their development happening in areas where little up-to-date information exists on sustainable yield/carrying capacity? (GS 4, 5 and 6)	No	The programme aim to reduce the number of cattle and improving their productivity. Thus, should have a positive impact on pasture and erosion.
6. Would the programme develop large-scale aquaculture or mariculture projects, or where their development involves significant alteration of ecologically sensitive areas?	No	
7. Would the programme result in significant use of agrochemicals which may lead to life-threatening illness and long-term public health and safety concerns? (GS 14)	No	
8. Does the programme rely on water-based (ground and/or surface) development where there is reason to believe that significant depletion and/or reduced flow has occurred from the effects of climate change or from overutilization? (GS7)	No	
9. Does the programme pose a risk of introducing potentially invasive species or GMOs which might alter genetic traits of indigenous species or have an adverse effect on local biodiversity? (GS1)	No	The programme will even try to reduce the impact of invasive species present in pasture areas.
10. Does the programme make use of wastewater (e.g. industrial, mining, sewage effluent)? (GS7)	No	
<b>Infrastructure development</b>		
11. Does the programme include the construction/ rehabilitation/upgrade of dam(s)/reservoir(s) meeting at least one of the following criteria? (GS8) more than 15 metre high wall or, more than 500 metre long crest or , more than 3 million m <sup>3</sup> reservoir capacity or, incoming flood of more than 2,000 m <sup>3</sup> /s	No	
12. Does the programme involve large-scale irrigation schemes rehabilitation/development (above 100 hectares per scheme)? (GS7)	No	
13. Does the programme include construction/rehabilitation/upgrade of roads that entail a total area being cleared above 10 km long, or any farmer with more than 10 per cent of his or her private land taken? (GS10)	No	The rehabilitation of roads doesn't involve area being cleared, the road already exist but are in poor condition.
14. Does the programme include drainage or correction of natural water bodies (e.g. river training)? (GS7)	No	
15. Does the programme involve significant extraction/diversion/containment of surface water, leaving the river flow below 20 per cent environmental flow plus downstream user requirements? (GS7)	No	
<b>Social</b>		
16. Would the programme result in economic displacement <sup>71</sup> or physical resettlement of more than 20 people, or impacting more than 10 per cent of an individual household's assets? (GS13)	No	
17. Would the programme result in conversion and/or loss of physical cultural resources? (GS9)	No	
18. Would the programme generate significant social adverse impacts to local communities (including disadvantaged and vulnerable groups and indigenous people) or other programme-affected parties? (GS13)	No	

<sup>71</sup> Economic displacement implies the loss of land, assets, access to assets, income sources or means of livelihoods (guidance statement 13).

<b>Other</b>		
19. Does the programme include manufacture and transportation of hazardous and toxic materials which may affect the environment? (GS2)	No	
20. Does the programme include the construction of a large or medium-scale industrial plant?	No	
21. Does the programme include the development of large-scale production forestry? (GS5)	No	
<b>Rural finance</b>		
22. Does the programme support any of the above (Q1 to Q22) through the provision of a line of credit to financial service providers? (GS12)	No	
<b>CATEGORY B – THE FOLLOWING MAY HAVE SOME ADVERSE ENVIRONMENTAL AND/OR SOCIAL IMPLICATIONS WHICH CAN BE READILY REMEDIED.</b>		
<b>Location</b>		
23. Does the programme involve agricultural intensification and/or expansion of cropping area in non-sensitive areas that may have adverse impacts on habitats, ecosystems and/or livelihoods? (GS1, 2 and 12)	No	
<b>Natural resource management</b>		
24. Do the programme activities include rangeland and livestock development? (GS6)	Yes	
25. Does the programme involve fisheries where there is information on stocks, fishing effort and sustainable yield? Is there any risk of overfishing, habitat damage and knowledge of fishing zones and seasons? (GS4)	No	
26. Would the programme activities include aquaculture and/or agriculture in newly introduced or intensively practiced areas? Do programme activities include conversion of wetlands and clearing of coastal vegetation, change in hydrology or introduction of exotic species? (GS4)	No	
27. Do the programme activities include natural resources-based value chain development? (GS 1, 6 and 12)	Yes	
28. Do the programme activities include watershed management or rehabilitation?	No	
29. Does the programme include large-scale soil and water conservation measures? (GS 1 and 5)	No	
<b>Infrastructure</b>		
30. Does the programme include small-scale irrigation and drainage, and small and medium (capacity < 3 million m3) dam subprojects? (GS 7 and 8)	No	
31. Does the programme include small and microenterprise development subprojects? (GS 12 and 13)	Yes	
32. Does the programme include the development of agro processing facilities? (GS 2, 6 and 12)	Yes	
33. Would the construction or operation of the programme cause an increase in traffic on rural roads? (GS10)	Yes	It is a possibility due to MCCs and processing units in villages.
<b>Social</b>		
34. Would any of the programme activities have minor adverse impacts on physical cultural resources? (GS9)	No	
35. Would the programme result in physical resettlement of less than 20 people, or impacting less than 10 per cent of an individual household's assets (GS13)?	No	
36. Would the programme result in short-term public health and safety concerns? (GS14)	No	
37. Would the programme require a migrant workforce or seasonal workers (for construction, planting and/or harvesting)? (GS13)	No	
<b>Rural finance</b>		
38. Does the programme support any of the above (Q24 to Q37) through the provision of a line of credit to financial service providers?(GS12)	No	

GUIDING QUESTIONS FOR CLIMATE RISK SCREENING	YES	NO	ADDITIONAL EXPLANATION OF "YES" RESPONSE*
1. Is the programme area subject to extreme climatic events such as flooding, drought, tropical storms or heat waves?		x	
2. Do climate scenarios for the programme area foresee changes in temperature, rainfall or extreme weather that will adversely affect the programme impact, sustainability or cost over its lifetime?		x	
3. Would the programme make investments in low-lying coastal areas/zones exposed to tropical storms?		x	
4. Would the programme make investments in glacial areas and mountains zones?	x		In mountain zones but not subject to frequent high climatic hazards. The programme is working on reducing water runoff and erosion by improving pasture management.
5. Would the programme promote agricultural activity in marginal and/or highly degraded areas that have increased sensitivity to climatic events (such as on hillsides, deforested slopes or floodplains)?		x	Reducing number of cattle per ha with pasture management plan and AI.
6. Is the programme located in areas where rural development projects have experienced significant weather-related losses and damages in the past?		x	
7. Would the programme develop/install infrastructure in areas with a track record of extreme weather events?		x	
8. Is the programme target group entirely dependent on natural resources (such as seasonal crops, rainfed agricultural plots, migratory fish stocks) that have been affected by in the last decade by climate trends or specific climatic events?	x		The significant negative trend of rainfall in pasture in programme areas could affect yield and quality of the pasture.
9. Would climate variability likely affect agricultural productivity (crops/livestock/fisheries), access to markets and/or the associated incidence of pests and diseases for the programme target groups?		x	No direct relation between CC and pasture productivity.
10. Would weather-related risks or climatic extremes likely adversely impact upon key stages of identified value chains in the programme (from production to markets)?	x		
11. Is the programme investing in climate-sensitive livelihoods that are diversified?	x		
12. Is the programme investing in infrastructure that is exposed to infrequent extreme weather events?	x		
13. Is the programme investing in institutional development and capacity-building for rural institutions (such as farmer groups, cooperatives) in climatically heterogeneous areas?	x		
14. Does the programme have the potential to become more resilient through the adoption of green technologies at a reasonable cost?	x		
15. Does the programme intervention have opportunities to strengthen indigenous climate risk management capabilities?	x		
16. Does the programme have opportunities to integrate climate resilience aspects through policy dialogue to improve agricultural sector strategies and policies?	x		
17. Does the programme have potential to integrate climate resilience measures without extensive additional costs (e.g. improved building codes, capacity-building, or including climate risk issues in policy processes)?	x		
18. Based on the information available would the programme benefit from a more thorough climate risk and vulnerability analysis to identify the most vulnerable rural population, improve targeting and identify additional complementary investment actions to manage climate risks?		x	