



Enabling poor rural people  
to overcome poverty

Report No. Xxxxxx

Date: xxxx

---

**The International Fund for Agricultural Development**

**REPUBLIC OF ARMENIA**

**RURAL ASSETS CREATION PROGRAMME (RACP)**

**Programme Final Design Report**

**Main Report**







REPUBLIC OF ARMENIA  
RURAL ASSETS CREATION PROGRAMME (RACP)  
PROGRAMME FINAL DESIGN REPORT  
MAIN REPORT

Table of Contents

	<b>Page</b>
<b>Currency Equivalents</b>	<b>iii</b>
<b>Weights and Measures</b>	<b>iii</b>
<b>Abbreviations and Acronyms</b>	<b>iii</b>
<b>Country Map</b>	<b>vi</b>
<b>Introduction</b>	<b>1</b>
<b>I. STRATEGIC CONTEXT AND RATIONALE FOR IFAD INVOLVEMENT, COMMITMENT AND PARTNERSHIP (KSF 1)</b>	<b>1</b>
A. Rural Development Context	1
B. Policy, Governance and Institutional Issues, Political and Economic Issues	8
C. The IFAD Country Programme	11
<b>II. POVERTY, SOCIAL CAPITAL AND TARGETING (KSF 2)</b>	<b>11</b>
A. Rural Poverty, Information and Analysis	11
B. The Target Group, Including Gender Issues	14
C. Targeting , Investment Strategies and Gender Mainstreaming	15
D. Geographic Coverage of the Programme	18
<b>III. PROGRAMME DESCRIPTION (KSF 3)</b>	<b>18</b>
A. The Knowledge Base: Lessons from Previous/Ongoing Programmes	18
B. Opportunities for Rural Development and Poverty Reduction (The Rationale)	19
C. Programme Goal and Objectives	21
D. Alignment with Country Rural Development Policies and IFAD Strategies	21
E. Programme Components	21
<b>IV. IMPLEMENTATION AND INSTITUTIONAL ARRANGEMENTS (KSF 4)</b>	<b>27</b>
A. Institutional Development and Outcomes	27
B. The Collaborative Framework	28
C. Results-based M&E	39
<b>V. PROGRAMME BENEFITS, COSTS AND FINANCING</b>	<b>42</b>
A. Summary Benefit Analysis	42
B. Summary Cost Table	47
C. Programme Financing: IFAD Financing, Co-financing, Government, Partners and Beneficiary Financing	47

<b>Table of Contents (cont'd)</b>	<b>Page</b>
<b>VI. PROGRAMME RISKS AND SUSTAINABILITY (KSF 5)</b>	<b>49</b>
A. Risk Analysis	49
B. Exit Strategy and Post-Programme Sustainability	50
C. Environmental Classification	50
<b>VII. INNOVATIVE FEATURES, LEARNING AND KNOWLEDGE MANAGEMENT (KSF 6)</b>	<b>51</b>
A. Innovative Features	51
B. Programme Knowledge Products and Learning Processes	51
C. Regional Knowledge Networking	51
<b>VIII. NEXT STEPS</b>	<b>51</b>

## **TABLES**

Table 1: Armenian Commercial Banks 2003 - 2009	5
Table 2: Armenian Credit Organisations 2003 – 2009	5
Table 3: Status of Rural Gasification by Marz	6
Table 4: Reduction in the Incidence of Poverty 1998/99 to 2007	12
Table 5: Beneficiary Targeting and Analysis	16
Table 6: Indicative Initial Procurement Plan	31
Table 7: Illustrative M&E Arrangements	41
Table 8: Production Financial Budgets Summary	44
Table 9: Summary of FA Model	44
Table 10: Summary of Incremental Annual Earnings and Beneficiaries at Programme Maturity	44
Table 11: Infrastructure Models - Financial Results and Switching Values	46
Table 12: Programme Costs by Component	47
Table 13: Financing Plan by Components (USD thousand)	48
Table 14: Financing Plan by Expenditure Accounts (USD thousand)	49

## **ANNEXES**

Annex I: Contents of the Programme Life File	1
Annex II: Programme Organigramme	3
Annex III: Programme Flow of Funds	5
Annex IV: Logical Framework and Key Files	7
Annex V: Summary of Main Cost Tables	15
Annex VI: Terms of Reference of Key Staff	23
Annex VII: Draft Activity Plan for First Year	37

## **WORKING PAPERS**

Working Paper 1: Poverty and Targeting	
Working Paper 2: Support to Fruits and Nuts Sector	
Working Paper 3: Rural Infrastructure	
Working Paper 4: Programme Costs and Financing	
Working Paper 5: Financial and Economic Analysis	

### Currency Equivalents

Monetary Unit	=	Armenian Dram (AMD)
1 USD	=	AMD 385
1000 AMD	=	USD 2.6
1 Euro	=	AMD 570
1000 AMD	=	1.75 Euro

### Weights and Measures

1 kilogram (kg)	=	2.204 pounds
1 000 kg	=	1 metric ton (mt)
1 pound (lb)	=	450 grams (gr)
1 kilometre (km)	=	0.62 miles
1 metre (m)	=	1.09 yards
1 square metre (m <sup>2</sup> )	=	10.76 square feet
1 acre (ac)	=	0.405 hectares (ha)
1 decare (da)	=	0.1 hectare (ha)
1 hectare (ha)	=	2.47 acres
1 quintal (qq)	=	45.3 kilograms
1 gallon (gl)	=	3.785 litres (lt)

### Abbreviations and Acronyms

ADRP	Anti-epizootic and Diagnostic Residual Pesticide/antibiotic, Food Safety Laboratory
AMD	Armenian Dram
AWPB	Annual Work Plan and Budget
CDI	Commercially Derived Infrastructure
CEN	Central and Eastern Europe and the Newly Independent States sub-region (IFAD)
COSOP	Country Strategic Opportunities Paper (IFAD)
CPI	Consumer Price Index
CSL	Central Seeds Laboratory
EIA	Environmental Impact Assessment
ESRN	Environmental and Social Research Note (IFAD)
EU	European Union
FA	'Fruit Armenia'
FB	Family Benefit System
FI	Financial Institution
FMAP	Farmer Market Access Programme
FREDA	Fund for Rural Economic Development in Armenia
GAV	Gross Agricultural Value
GC-MS	Gas Chromatography-Mass Spectrometry
GDP	Gross Domestic Product
GGAP	Global Good Agricultural Practices
GoA	Government of Armenia

## **Abbreviations and Acronyms (cont'd)**

HACCP	Hazard Analysis and Critical Point Control
HVCD	Horticulture Value Chain Development
ICT	Information and Communications Technology
IFAD	International Fund for Agricultural Development
ILCS	Integrated Living Conditions Survey
IMF	International Monetary Fund
IPM	Integrated Pest Management
IRR	Internal Rate of Return
ISO	International Organisation for Standardisation
JICA	Japan International Cooperation Agency
KSF	Key Success Factor
LGP	Local Government Project (USAID)
M&E	Monitoring and Evaluation
MCA	Millennium Challenge (Corporation/Account) Armenia
MD	Marketing Department (FA)
MDG	Millennium Development Goal(s)
ND	Nursery Department (FA)
NFRE	Non-Farm Rural Economy
NMEFP	National Manual for Export of Fresh Produce
NPV	Net Present Value
NSS	National Statistical Service
O&M	Operation and Maintenance
ODD	Orchard Development Department (FA)
OFID	Organisation of Petroleum Exporting Countries' Fund for International Development
(O)JSC	(Open) Joint Stock Company
ORS	Objective Ranking System
PAAU	Programme Analysis and Administration Unit
PCE/IA	Programme Completion Evaluation/ Impact Assessment
PCR/IA	Programme Completion Report/ Impact Assessment
PHD	Produce Handling Department (FA)
PIM (1)	Participatory Impact Monitoring
PIM (2)	Programme Implementation Manual
PRSP	Poverty Reduction Strategy Paper
PUI	Public Utilities Investments
PY	Project/Programme Year
RACP	Rural Assets Creation Programme
RAEDP	Rural Areas Economic Development Programme
RI	Rural Infrastructure
RIMS	Results and Impact Management System (IFAD)
RFF	Rural Finance Facility
RTI	Rural Transportation Investments
SDP	Sustainable Development Programme
SLA	Subsidiary Loan Agreement
SME	Small and Medium Enterprise(s)
TA	Technical Assistance
TBD	To be determined
TIS	Trade Information System
TS	Technical Section (PAAU)



**Abbreviations and Acronyms (cont'd)**

UCO	Universal Credit Organisation(s)
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USD	United States Dollar
WHO	World Health Organisation
WOP	Without Project/Programme
WP (1)	With Project/Programme
WP (2)	Working Paper
WUA	Water Users Association
Y	Year

**GOVERNMENT OF REPUBLIC OF ARMENIA**

**Fiscal Year**

**1 January – 31 December**

## Country Map

### Republic of Armenia

Rural Asset Creation Programme

Final design report



13-4-2010



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.

Map compiled by IFAD

REPUBLIC OF ARMENIA  
RURAL ASSETS CREATION PROGRAMME (RACP)  
PROGRAMME FINAL DESIGN REPORT  
MAIN REPORT

**Introduction**

1. A team from the International Fund for Agricultural Development (IFAD) undertook a Mission in Armenia between 17th March and 2<sup>nd</sup> April 2010 in order to finalise the design the proposed Rural Assets Creation Programme (RACP).<sup>1</sup>

2. During its visit the Mission held meetings with a range of stakeholders. The Mission met with various Government departments and institutions, international donor organisations, farmers' support organisations, export promotion institutions and potential Programme beneficiaries in the field. A Wrap-up meeting was held on Friday 2<sup>nd</sup> April at which H.E. Armen Gevorgyan, Deputy Prime Minister of Armenia, fully endorsed the RACP concept and requested IFAD to assist in securing the necessary financing for its realisation.<sup>2</sup>

**I. STRATEGIC CONTEXT AND RATIONALE FOR IFAD INVOLVEMENT,  
COMMITMENT AND PARTNERSHIP (KSF 1)**

**A. Rural Development Context**

3. **The Economy Overall.** It is estimated that the Armenia gross national product per capita fell by about 75% during the first four years of independence (1991-1994). At the end of 1994, the Government adopted a comprehensive programme of macroeconomic stabilisation and structural reform. Important institutional measures were taken to ensure free price formation and to liberalize trade to encourage private sector business and promote exports. The privatization of most small and medium-sized state-owned enterprises substantially curtailed government's intervention in the economy. This led to an average annual growth in Gross Domestic Product (GDP) of 6% between 1994 and 1998, notwithstanding the financial crisis in Russia at the end of the same period. Subsequently, the economy grew by 13.2% in 2002, 14% in 2003, 10% in 2004 and 13.9% in 2005. Real GDP grew by 14% between January and December 2006, but real GDP shrank by 18.4% year on year in January-August 2009, to Dram 1.76 trillion (USD 5 billion)<sup>3</sup>. The sharp decline in real GDP was driven by the steep fall in the construction sector, as well as by the collapse in international prices for non-ferrous metals and chemicals in late 2008. Food-processing, the largest manufacturing subsector, contracted by 7.1% year on year in January-August 2009. Furthermore, steep falls in cash remittances from Armenians working abroad have also weighed on domestic demand.

---

<sup>1</sup> The Mission comprised Ian Jones (Team Leader and Sociologist), Theresa Rice, IFAD Economist (Financial Analyst and Economist) and Jorma Ruotsi (Rural Finance/Institutions Specialist). Mr Vineet Raswant (IFAD Senior Technical Advisor) and Mr. Henning Pedersen (IFAD Country Programme Manager for Armenia) accompanied the Mission between March 26<sup>th</sup> and April 2<sup>nd</sup>.

<sup>2</sup> The Mission Aide Memoire, including a list of Persons and Organisations Met both during the earlier IFAD design mission of November 2009 and the Final Design Mission, is provided in Annex I of this Main Report, 'Contents of the Programme Life File'.

<sup>3</sup> According to the National Statistical Service (NSS).

4. Armenian officials forecast that the full-year contraction in real GDP will come down to 12-15% in 2009 as a whole. Both the World Bank and the IMF forecast contractions of a similar size. In September the IMF revised down its forecast for real GDP performance in Armenia and now foresees a 15.6% contraction, compared with a forecast fall in GDP of 9.5%. The Fund expects an improvement in the outlook for the construction, services and agriculture sectors towards the end of 2009. Both the Fund and the authorities expect improvements in these sectors to provide support for the economy in 2010, with the authorities forecasting an expansion of 1.2% in real GDP in that year.

5. The authorities remain on track to keep consumer price inflation within the target band of 4% ( $\pm 1.5\%$ ) in 2009, helped by the traditional seasonal drop in the prices of domestically grown fruit and vegetables.

6. The consumer price index (CPI) was down by 0.4% month on month in August, and the National Statistical Service (NSS) recorded an inflation rate of 2.8% year on year for January-August. This represents a sharp fall compared with 2008, when consumer price inflation for January-August was 9.5% year on year, at a time when the economy was still expanding at a double-digit rate.

7. **Population, Agriculture and the Current Economy.** As of January 1<sup>st</sup> 2008, the estimated population of Armenia, extrapolated from the last census in 2001, was 3 230 100. Of the total population, 64.1% of the population are classed as urban and 35.9% (1 159.6 thousand) considered rural. Female-headed households account for 32.9% of urban households and 29.7% of rural households.

8. Although agriculture's contribution to the national economy has been declining from around 30% in 1998 to 18% in 2009, the sector remains important to rural development. With very few off-farm employment opportunities, rural people continue to rely on their small farms, averaging 1.4 ha per household. The number of people employed in agriculture increased from 0.29 million in 1991 to 0.51 million by the mid-2000s. Agriculture covered 17.7% of the country's workforce in 1991, but a high 46% in 2009. The increasing number of people employed in agriculture has resulted in low labour productivity averaging only 6.8% annually (1996-2006) compared to 14.7% for the non-agricultural sector, leaving the income for agricultural labour at around 61% (2006) of non-agricultural sector income. Another important aspect of agriculture is its contribution to the food processing sub-sector, accounting for 46% (2008) of added value for industrial production, which translates into 6.76% of GDP. The growing food processing sub-sector also generated around 2 700 additional off-farm jobs during the period 2003 and 2008, many of them in rural towns.

9. There are around 340 000 farm households in total with average holdings of 1.4 ha, each divided into three or four small plots. The large number of small farms and the huge increase in the proportion of the national workforce working in agriculture is a consequence of the economic collapse associated with the dissolution of the Soviet Union. The persistence of these sector characteristics is explained below in Section B of this Chapter. The farms are generally diversified in their production pattern, with a strong subsistence orientation. Women represent around 40% of the workforce in agriculture and, as noted above, head 30% of rural households (also see Working Paper 1). These smallholder farms are still responsible for some 97% of primary agricultural production in Armenia. However, there is a dynamic and growing, although still small, group of more commercially oriented farmers that has emerged over the past couple of years having invested in modern machinery and cultivating larger areas and keeping larger herds of animals. Irrigation is vital for high productivity under Armenian climate conditions; presently approximately 30% of total arable land can be irrigated.

10. **Vegetables, Fruits and Nuts as Leading Growth Sectors.** Gross Agricultural (GAV) grew at an average of 3.82% per annum during the first five years of the past decade (1998-2002) and around 11% for the remaining period (2003-2007). In 2003 the vegetable sub-sector represented 10.3% of GAV rising to 26.1% in 2007. The fruit sub-sector represented 33.4% of gross agriculture value in 2003 rising to 39.2% in 2007. In 2007 the two sub-sectors represented 65.3% of GAV, but occupied only 28% of the arable land translating into a gross productivity 4.8 times higher than for grain and livestock combined (AMD 3.5 million/ha compared to AMD 0.72 million/ha for grain and livestock, combined). During the period 2003 to 2007, the land under vegetable production increased by an average of only 1.25% per year, whereas land under fruit production also rose relatively moderately, on average 9.6% per annum. Therefore, the huge increases in GAV are mainly a result of productivity gains from improved husbandry practices, new plantations of old orchards and increases in producer prices.

11. During the period 2003 to 2007<sup>4</sup> the **demand for vegetables and fruits** for the processing industry grew rapidly, averaging 68% annually for vegetables (705 mt to 3 122 mt) and 67% for fruit (1 082 mt to 4 717 mt). The quantities of processed fruits exported also increased by 11.18% annually (222 mt/year). **Export** of apricot and peach/nectarine had a strong growth between 2002 and 2005. According to Russian data, imports of Armenian apricot grew from 103 mt in 2001 to 3 711 mt in 2005, or 875% per annum and export of peach/nectarine from 4 mt in 2001 to 308 mt in 2005, or 1 900% per year. The value of apricot export amounted to USD 63 860 in 2001 and USD 1.9 million in 2005. The price for Armenian apricot experienced an average annual rise of 6.7% compared to 9.6% for the average price for total import of apricot during the same period. According to Armenian exporters, growth in both the volume and the unit value of Armenian fruit and nuts in the Russian market would have been greater were it not for cold storage and consistency of quality constraints.

12. Armenia is in the process of upgrading its capability to undertake **agricultural produce/food export quality testing and export certification** in accordance with recognised international standards. While progress is being made, further strengthening in this regard is required for the country to be able to exploit fully its comparative and competitive advantage with respect to agricultural exports. A number of export companies have adopted private codes of **Global Good Agricultural Practices (GGAP)** able to trace husbandry practices used and the farmers who have produced the produce. However, a national system for GGAP is presently not required by the authorities. **Phytosanitary certification** of all plant material (fresh fruit and planting material) is issued for both export and import. However, there is no functional certification system in place for domestically produced planting material, which could lead to serious spread of pest and disease rendering horticultural production non-competitive.

13. In the context of agricultural exports, an institution of note is the Union of Exporters of Armenia (UEA). The UEA has recently finalised a 5-year Strategic Plan. According to this plan, the focal areas of UEA's operations in export promotion are: Representation and lobbying; Information dissemination on all issues related to the development of the member companies and their new export opportunities; Direct export contact facilitation for individual member companies; and Support to Buy Armenian-campaign. UEA actively operates in various fora linked to the promotion of the export of food products and also participates in various Government-established workgroups and committees that aim to support the development of private companies and their export efforts. With its mandate and well-defined internal development plans, UEA would seem strongly positioned to partner with the proposed RACP in the implementation of the Programme's support to standards and export promotion activities in the fruits and nuts sector (see below).

---

<sup>4</sup> Source: Armenian Statistical Year Book 2009.

14. With regard to agro-institutions, the Armenian public **agricultural research and extension** service is under the Ministry of Agriculture's Department of Science, Education and Consultancy. Over the past few years the service has received considerable capacity building support, primarily from the World Bank<sup>5</sup> and the United States Department of Agriculture (USDA). In particular, ten *Marz*<sup>6</sup> Agricultural Support Centres (MASCs) have been established with some 250 staff in total. The MASCs provide specialist consultancy services to farmers including training, field demonstrations, mass media products and marketing information. Technical back-up to MASCs is provided by a Republican Centre for Agricultural Support, the Armenian State Agrarian University (ASAU) and specialist agro-science centres. Funding for the system has been gradually transferred from official development donors to Government, which now accounts for over 90% of the finance. Current concern is focused on positioning the system as a sustainable, market-oriented business, under which its services can be contracted by individuals and by both private and public sector organisations.

15. Overall, the post-Independence **farmer cooperative movement** in Armenia has historically been relatively weak. However, the Federation of Agricultural Associations (FAA) established in 2001 has revived interest among farmers in having their own organisations. There are currently 21 associations with 1 700 members. This represents less than 1% of total farm population and many members operate medium-size farms rather than the standard 1.5 ha smallholdings. The core activities of the FAA are: Lobbying and Public Relations; Training, research and consulting; Programme development and fundraising; Financing, credit and leasing; Marketing of members' produce; and Input supply to members. With its knowledge of the sector and its farmer membership, the FAA may be able to assist the planned RACP operations particularly in such areas as the selection of smallholders for contract farming operations and for the various types of training events planned for private nurseries and non-contracted farmers (see below).

16. With regard to **rural finance**, increases in the availability of credit to the agricultural sector over the past decade have been significantly contributory to its growth. A comparison between 2003 and 2009 of the capital structure, numbers of banks and their branches and outstanding loan portfolio for commercial banks is shown in Table 1 below. As may be seen from Table 1, the value of commercial banks' outstanding portfolio to the agricultural sector rose from AMD 9 804 million (around USD 25 million) in 2003 to AMD 43 408 million (USD 108 million) in 2009. Nevertheless, progress might be regarded as some way from meeting its full potential. The loan products offered by the banking sector<sup>7</sup> to agriculture are limited to term lending usually for a maximum period of 3 to 4 years. Loans are secured either by collateral or by personal guarantors and the required security by most commercial banks are several hundred percent higher than the value of the loan. In addition, while interest rate spreads have declined in recent years, they still remain high and well above those in most transitional countries, averaging over 12% in the past seven years. These conditions have limited investments related to expansion of and/or rehabilitation of existing enterprises generating early positive cash flows. Few investments have been made in new enterprises like orchards, animal stables, small processing plants and fish farming. Indeed, it will be seen that the relative contribution to agriculture has actually fallen between 2003 and 2006.

---

<sup>5</sup> Under the provisions of the two phases of the Rural Enterprise and Small-scale Commercial Agriculture Development (RESCAD) project.

<sup>6</sup> Marz: regional-level administrative unit, see below.

<sup>7</sup> Information obtained from IFAD financed programmes in Armenia and from the Rural Finance Facility.

**REPUBLIC OF ARMENIA: RURAL ASSETS CREATION PROGRAMME (RACP)  
PROGRAMME FINAL DESIGN REPORT  
MAIN REPORT**

**Table 1: Armenian Commercial Banks 2003 - 2009**

	<b>31/12/2003</b>	<b>30/9/2009</b>	<b>% Change</b>
<b>Capital Structure (Mill. AMD)</b>			
Assets	282 100	1 230 000	426%
Liabilities	232 000	972 200	419%
Equity	50 100	258 300	515%
<b>No. of banks and Rural Branches</b>			
No. of Banks	20	22	10%
No. of Branches	232	383	65%
<b>Outstanding Portfolio (Mill. AMD)</b>			
Total Portfolio	129 000	657 700	410%
Outstanding Agricultural Portfolio	9 804	43 408	343%
Agricultural Loans of Total	7.6%	6.6%	-

Source: Central Bank of Armenia.

17. In the non-bank financial (NBF) sector, Universal Credit Organisations (UCOs) are making an increasingly important contribution to rural finance albeit from a low starting point. As shown in Table 2 below, their physical outreach has experienced a large growth between 2003 and 2009 both in terms of new UCOs and an increased rural branch network. During the same period, their total portfolio has reached AMD 50 billion, with a low non-performing loan share of 4.3%. Recently, at least six UCOs have actively started to operate also with leasing products as a way to tackle the collateral problem that many people in their lower income clientele continue to face, particularly in the rural areas.

**Table 2: Armenian Credit Organisations 2003 – 2009**

	<b>31/12/2003</b>	<b>30/9/2009</b>	<b>% Change</b>
<b>Capital Structure (Mill. AMD)</b>			
Assets	3 500	78 300	2 137%
Liabilities	1 300	52 400	3 930%
Equity	2 200	25 900	1 077%
<b>No. of banks and Rural Branches</b>			
No. of UCOs	6	27	350%
No. of Rural Branches	n/a	53	-
<b>Outstanding Portfolio (Mill. AMD)</b>			
Total Portfolio	1 500	50 700	2 380%
Outstanding Agricultural Portfolio	180	7 200	3 000%
Outstanding Agricultural Leasing Port.	945	5 500	482%
Agricultural Loans/Leases of Total	75%	25%	-

Source: Central Bank of Armenia.

18. An increasing number of companies processing fruit and vegetables and exporting fresh produce are engaged in **contract farming**. Under these arrangements farmers are provided with production assistance either in the form of cash advances, inputs or guarantees for borrowing from a financial institution. The contracting companies also provide advisory services to the farmers.

19. **The Non-Farm Rural Economy (NFRE)** is extremely limited. Further description and analysis in this regard is given below in Section B of this Chapter.

20. The three main **rural infrastructure**<sup>8</sup> sectors, which are crucial to the rural economy and its development, are water (domestic and irrigation), energy and transport. **Piped water supply** in Armenia is 98% for urban and 78% for rural communities. However 61.7% of the piped systems in the rural areas are not adequate to provide a 24 hours supply and only 30% of the rural population has continual access to domestic water. Most of the water supply networks in mountain rural communities

<sup>8</sup> See Working Paper 3 'Rural Infrastructure' for more details.

**REPUBLIC OF ARMENIA: RURAL ASSETS CREATION PROGRAMME (RACP)  
PROGRAMME FINAL DESIGN REPORT  
MAIN REPORT**

(about 500 schemes) are operated and managed directly by the local municipalities and were built in the Soviet period some 25-30 years ago. They are used to supply both humans and animals. Substantial public investment is required for their rehabilitation and improvement. Only 11% of rural communities have access to a centralized sewerage system. Individual pit latrines and infiltration soakways are the most common means of wastewater disposal. Storm water drainage works are also needed in the mountainous areas of Armenia, due to the geological conditions (mountains, watersheds, rocky catchments, steep valleys) and hydrological regimes which create optimal conditions for landslides<sup>9</sup> and flooding of communities, resulting in losses in agriculture and property as well as damage to the streets and to public utilities (drinking water and gas). The sector has received very limited funding since the collapse of the Soviet Union.

21. **Irrigation** is crucial to Armenian agricultural production. At present about 30% of arable land is irrigated, producing about 80% of total agricultural output. Irrigation methods consist of: furrow systems (30%); border strip irrigation (10%); flooding (45%); pressurized sprinklers and localized irrigation (15%). Current levels of irrigation efficiency do not exceed 40%.

22. With regard to **energy**, rural electrification is widespread in Armenia. Electrical connectivity ranges between 98-100%. The reliability of power supply is adequate, and rural electrification is not considered to be a constraint for rural development in Armenia. The present status of rural gasification is given in Table 3 below.

**Table 3: Status of Rural Gasification by Marz**

<b>Marz</b>	<b>Total Communities</b>	<b>without gas</b>	<b>Of which above 50 hh</b>	<b>On-going (FMAP)</b>
Shirak	116	60	40	2
Lori	105	39	36	3
Ararat	93	18	15	2
Syunik	104	78	51	2
Gegharkunik	82	36	31	1
Aragatsotn	111	59	45	1
Vayots Dzor	41	34	31	4
Kotayk	62	7	7	0
Tavush	61	23	22	0
Armavir	94	13	12	0
<b>Total</b>	<b>869</b>	<b>367</b>	<b>290</b>	<b>15</b>

Source: ArmRosGazprom (Nov 2009).

23. The continuing large demand for the extension of rural gas supply networks is due to the reduced availability (and increased market price) of firewood and to the savings arising by substituting expensive LPG tanks with cheaper natural gas. Investments in rural gas networks were given the highest ranking and were identified as an effective means of targeting poor communities through a "decision matrix" applied in a World Bank study.<sup>10</sup>

24. With respect to **transportation**, specifically roads, the total length of the Armenian road network approximates 7 700 km (excluding 2 700 km of municipal streets). There are three categories of roads based on their functional purpose: (i) interstate highways, which comprise 1 561 km; (ii) republican roads, which comprise 1 800 km; and (iii) local roads, which comprise 4 342 km. Local roads are further divided

<sup>9</sup> Combating landslides was included in the SDP/PRSP-2 framework, following a study by JICA (August 2004).

<sup>10</sup> Rural Infrastructure in Armenia: Addressing Gaps in Service Delivery (September 2004).



by the type of their ownership as *marz* owned (3 352 km) and community owned (990 km) roads; maintenance of these roads is assigned to the respective administrative level. The World Bank study<sup>11</sup> defined a “lifeline network” as the most optimal road network for connecting rural communities to interstate highways at least through one all weather route. The study highlighted the fact that the poor condition of rural roads results in significant losses of produce in 42% of rural communities, with 18% of communities reporting output losses of 40% or more and a further 24% reporting losses that exceeded 30%.

25. In addition to the three main sub-sectors described above, two other aspects of rural infrastructure which are important for poverty-reducing agricultural and rural development should perhaps be mentioned. On the positive side, the status of **information and communication technology** (ICT) is good with most villages being reached by land-line telephones and mobile telephone network coverage. Internet access is now provided also by the mobile networks operators. More negatively, the issue of **solid waste disposal** is rapidly becoming critical, both in the urban and in the rural areas of Armenia. A baseline study carried out by USAID within the scope of the ongoing Local Government Project (LGP) showed that solid waste collection and disposal is a top priority in 32 out of the 38 project municipalities. The large majority of the dump sites are non-engineered landfills, often illegal and located on slopes or in the pathway of catchment areas, where effluents from the garbage not only leach into the ground, but drain directly into the downstream water bodies. A recent study identified 178 illegal dump sites across the 869 rural communities in Armenia. Clearly, this situation poses health and environmental threats that seriously challenge agricultural and rural development.

26. Overall lead responsibility for **environmental issues** in Armenia rests with the Ministry of Nature Protection. The Ministry’s policy and programme framework is set out in its 2008 ‘Second National Environmental Action Programme (NEAP2) of the Republic of Armenia’. NEAP2 covers the period 2008-2012. NEAP2 identifies ‘primary external threats’ as including: hindrance of joint use of natural resources of trans-boundary significance; trans-boundary consequences of industrial, nuclear or emission accidents; trans-boundary volley emissions and leakages; outbreaks of trans-boundary deadly epidemics and natural disasters; use of environmentally dangerous substances and waste and the trans-boundary transportation of radioactive substances; trans-boundary air pollution; global climate changes and depletion of the ozone layer; and importation of live modified organisms. Cited primary internal threats include: depletion of vital water-collecting basins and highly humid areas; inefficient management of natural resources; unequal access to natural resources; forest and land degradation; desertification; reduction of biodiversity; exceeding marginal permissible proportions of emissions and leakages into the environment; non-regulated utilisation of hazardous substances and waste; epidemics; natural and technical disasters; and lack of environmental education and insufficient awareness among society.

27. NEAP2 classifies its proposed initiatives in response to the above threats to the environment under: (i) Environmental Policy, Legislation and Institutional Capacities; (ii) Economic and Financial Mechanisms; (iii) Water Resources Management; (iv) Earth’s entrails (sic) management unit; (v) Atmosphere Protection and Climate Change; (vi) Environmental Monitoring; (vii) Management of biodiversity and bio-resources including the forest sector; (viii) Management of chemical substances and wastes; (ix) Sustainable use/management of lands; (x) Environment and health; (xi) Nature protection: energy, industry, agriculture and municipal sector; (xii) Public awareness and environmental education and information accessibility; (xiii) International cooperation in the Environmental Sphere; and (xiv) Scientific Research and Development. With regard

---

<sup>11</sup> Ibid.

to **climate change**, NEAP2 lists ten initiatives focussed on reduction of industrial and transport-related emissions into the atmosphere. As a 'developing country', Armenia has no specific emission targets under the Kyoto Protocol. Overall, NEAP2's proposed initiatives perhaps represent to a great extent a statement of intent with translation into practice being considerably dependent on raising supplementary finance from international funding sources.

28. Finally, with regard to **rural administrative structures**, the 1995 Constitution established 11 *marzes* (including the overwhelmingly urban *marz* of Yerevan), each headed by a *marzpet* (governor) appointed by the Prime Minister. The *marzpet* is the representative of Government at the provincial administration level but has no independent financial resource base. The role of the *marzpet* is defined as the coordination and monitoring of central policies. Below the *marz*, the Village Councils constitute the local administrative level, with elected Village Councils headed by a Chairman. Village Councils manage their own budgets and have revenue collection authority for the land tax, a tax on assets and for administrative fees. The Village Councils have to provide several public services and local budget deficits are in principle supplemented by the State Budget. The availability of such subsidies is erratic. Hence, low-revenue communities are often unable to ensure provision of basic services such as potable water, education and health services.

## **B. Policy, Governance and Institutional Issues, Political and Economic Issues**

29. Three current development strategies in Armenia, and their associated policies, are of potential relevance to the RACP: Government's Sustainable Development Programme (Poverty Reduction Strategy Paper 2); Government's revised 2006 Agricultural Sustainable Development Strategy; and the United Nations Development Assistance Framework (UNDAF) 20010-2015.

30. Government's **Sustainable Development Programme (Poverty Reduction Strategy Paper 2) (SDP-PRSP2)** notes that the share of agriculture in national Gross Domestic Product (GDP) has decreased by almost two times in the last 11 years due to a lower growth rate in agriculture as compared to the overall growth rate of the economy. While national GDP has tripled in the period 1995-2006, the value-added produced in the agricultural sector of economy has increased only by a factor of 1.7. Although agriculture labour productivity has increased by 92.6 percent in the decade 1996-2006, the productivity of non-agricultural sector quadrupled. Consequently, productivity in agriculture as a percentage of productivity in non-agricultural activities has fallen from 77.4% in 1996 to 25.6% in 2006. However, agricultural incomes as a percentage of non-agricultural incomes have relatively decreased by far less, being 74.7% in 1996 and 61% in 2006. Indeed, agricultural incomes rose in the decade by a factor of 6 has compared to a rise in non-agricultural incomes by a factor of 7.2., demonstrating a substantial increase in agricultural labour unit costs not reflected in a corresponding rise in productivity. The SDP-PRSP2 further notes that the export of agriculture products from 1996 to 2006 in current dollar terms grew by 22.7 times, with the agricultural value-added growing 11-fold. Between 2002 and 2006 the increase in agricultural exports accounted for 94.6% of the total value increase of all exports.

31. As noted earlier, the vast majority of agricultural production continues to come from some 340 000 small farms of an average size of 1.4 ha. They account for around 97% of all agricultural production while, between 2003 and 2006, the contribution of commercial agricultural enterprises fluctuated between 0.8 and 3.8%. The consolidation of small farms envisaged by Armenia's first 2004 Poverty Reduction Strategy Paper has not happened. This is because, while post-independence urban job losses have been offset to a great degree by recent economic growth, the new urban jobs are more productive than those originally lost, maintaining dependence among many people upon

agriculture for their livelihoods and preventing the anticipated level of economic recovery re-flow of labour from rural to urban areas. This situation contributes to the maintenance of small-farm production despite the fact that, in principle, the marketability has greatly increased as a result of rapid growth of domestic demand for agricultural products and substantial increases in their prices for agricultural products and improvement of irrigation.

32. Against this background the SDP-PRSP2 foresees that small farms will remain the basis of agricultural production and increasing small farm marketability and productivity as well as ensuring the availability of appropriate credits will continue to be the main priorities of agrarian policy. The contribution of large commercial farms agricultural value-added their specific is expected to gradually increase from 2.4% in 2006 to 11.4% in 2021 with the number of farms correspondingly reduced by 10% and labour moving from small farms to commercial enterprises.

33. The continued dominance of smallholder farming raises a number of poverty reduction and development challenges in the view of the SDP-PRSP2. Relatively low and slow increases in agricultural productivity have already been noted. In addition, the actual labour time of agricultural employees is calculated as being only some 47% of that of full-time employment. Furthermore, in 2005 agricultural activities generated 74% of GDP in rural areas, while employment in agriculture comprised 83.3% of total rural employment. Such a situation makes the welfare of the rural population heavily dependent upon development level and growth rates of agriculture and cuts them off from the benefits of a diversified non-farm rural economy (NFRE). Evidence from other transitional economies shows that diversified NFREs are much more effective for attaining rural poverty-reduction and development since they generate more remunerative livelihoods and at the same time create space for the economic rationalisation of the agricultural sector, hence making that too more productive and remunerative.

34. The goals of the SDP-PRSP2 are: (i) to get the material poverty level to 8% in 2012 thus mostly overcoming it and to bring the level of extreme poverty to 1.2% thus practically eliminating it; and (ii) to restrain the deepening of existing economic growth disproportions through development and introduction of a targeted territorial policy ensuring the accelerated development of weak regions. Economic policy priorities with regard to attaining these goals include: targeted territorial assistance to mitigate territorial development disproportions; increasing the country's competitiveness through promotion of output growth, ensuring of competitive levels of unit labour force value, promotion of new and higher value-added jobs; and export promotion.

35. With specific regard to the rural areas, the SDP-PRSP2 advocates measures to increase agricultural productivity and opportunities for NFRE employment. Such measures would include: (i) wide use of public resources for maintenance and renovation of agricultural infrastructure; (ii) increasing the availability of credit funds and expansion of banking and other types of financial opportunities for farms; (iii) implementation of effective technologies in the main agricultural sectors; (iv) development of the agricultural products processing sector including introduction of innovative technologies, improvement of production competitiveness, marketing assistance and contractual relations with primary producers, creation and expansion of small and medium enterprises in rural areas as well as obligatory realization of relevant sanitary and phytosanitary activities in line with the international standards; (v) encouraging a progressive growth of export of agricultural products; and (vi) encouraging the establishment of integrated private structures and enterprises for primary processing of agricultural products and ensuring the availability of credit financial resources for them.

36. The revised **2006 Agricultural Sustainable Development Strategy**. The overall objective of the strategy of the agrarian sector development is to promote

sustainable agricultural development, increase food security level and income of rural population through creation of favourable environment for the entities operating in agricultural sector. The overall objective of the Strategy includes the following specific objectives: (i) increase of agricultural gross production and of production profitability; (ii) efficient use of producing capacities: land, water, labour, research and technical resources; (iii) improvement of food safety; (iv) rural poverty reduction and reduction of rural migration, introduction of non-agricultural activities in rural areas; (v) improvement of agricultural infrastructures, enhancement of production share of produces ensuring high profitability; (vi) decrease of agricultural negative impact on the environment; (vii) Improvement of agricultural tax and credit systems; and (viii) integration to international agricultural process.

37. The main tasks or directions of the strategy for sustainable agricultural development are: (i) deepening of agrarian reforms, development of market infrastructures and improvement of forms of economic activity; (ii) increase in level of physical and economic availability of food, taking the following issues into account: food safety and minimum level of self-sufficiency of basic food; (iii) increase of agricultural local producers competitiveness and substitution of the imported produce with the local production where expedient; (iv) food safety system development; (v) zoning and rational distribution of production; (vi) implementation of land reclamation complex measures; (vii) creation of conditions and legal basis for organic production; (viii) crop production development - application of advanced agro-technologies, cultivation of crops ensuring high level of added value, development of seed production and breeding, introduction of operational control mechanisms in seed quality, implementation of plant protection and quarantine measures, and crop genetic diversity including crop wild relatives conservation; (ix) livestock production development - support to inter-correlation of livestock sub-sectors and their rational operation, implementation of pedigree breeding development complex measures, improvement of animal health sector and increase of efficiency of veterinary activities, development of fodder system, support to commercial livestock production organisations, and ensuring conservation of agricultural animals genetic diversity; (x) agricultural raw materials processing - development of the sector and rational operation of the processing industry, application of progressive technologies and increase of production competitiveness and support to marketing and promotion of cooperation with the processing industry on a contractual basis; (xi) development of input supply and social infrastructure; (xii) improvement of tax and credit systems in the agrarian sector - development of mechanisms for ensuring transition from a tax privilege system to a subsidy system and improved access to agricultural credit mechanisms; (xiii) improvement of research activities and extension services in the agrarian sector; and (xiv) improvement of the agricultural registration system through implementation of an agro-census, development of relevant legislation for the legal status of entities dealing with agriculture and measures regulating legal relations.

38. The **United Nations Development Assistance Framework 2010 – 2015 (UNDAF)** will address four key areas: Poverty Reduction, Democratic Governance, Basic Social Services and Environmental Management and Disaster Risk Reduction and will focus on the following key results: (i) inclusive and sustainable growth is promoted by reducing disparities and expanding economic and social opportunities for vulnerable groups; (ii) democratic governance is strengthened by improving accountability, promoting institutional and capacity development and expanding people's participation; (iii) regional disparities in key human development indicators reduced with a view to achieving the national MDGs; and (iv) by 2015 national authorities implement environment and disaster risk reduction in the frames of national and local development frameworks.

### C. The IFAD Country Programme

39. The latest IFAD Country Strategic Opportunities Paper (COSOP) for Armenia notes that, while continuing to focus on the most disadvantaged rural areas, investment must consider both the non-farm rural economy (NFRE) based on small and medium enterprises (SMEs) while at the same time seek to support production and productivity for primary producers where returns are highest. The target groups of concern to IFAD, therefore, are poor farm families, who can produce some surplus above their consumption needs and can generate additional income, and small and medium scale rural processors and service providers. The strategy in the COSOP is in line with those of the SDP-PRSP2 and the 2006 Agricultural Sustainable Development Strategy as described above.

40. Over the last fourteen years IFAD has invested in five projects/programmes in Armenia. These include three already closed projects, which supported the rehabilitation of irrigation schemes at the secondary and tertiary levels, the establishment and training of water users' associations, the provision of rural financial services and the rehabilitation of social infrastructure. Two investments are ongoing: the Rural Areas Economic Development Programme (RAEDP), which was very recently completed but not yet formally closed and the Farmer Market Access Programme (FMAP), which was launched in 2008. RAEDP has delivered an inter-related package of rural business development training and loans for investment and working capital for small and medium on and off-farm private enterprises. It also established a Rural Finance Facility (RFF) as a sustainable financial mechanism for delivering continuing financial services beyond the programme life. The programme also supported grant-financed construction and rehabilitation of 'commercially-derived' infrastructure, i.e. infrastructure with demonstrable and sustainable impact upon rural on and off-farm enterprise development. FMAP focuses on both on and off-farm investments in SMEs that generate self-employment and job creation and can develop strong linkages to markets. The approach used to deliver financial services under FMAP is a combination of equity funding and subordinated loans. Equity participation is handled by the Fund for Rural Economic Development in Armenia (FREDA), established by Government with support from IFAD and the Government of Denmark.

41. The lessons learned from IFAD investments in Armenia are set out fully below in Chapter III, Section A, The Knowledge Base: Lessons from Previous/Ongoing Programmes.

## II. POVERTY, SOCIAL CAPITAL AND TARGETING (KSF 2)

### A. Rural Poverty, Information and Analysis

42. Comprehensive details related to this section of the Main Report are provided in Working Paper 1 'Poverty and Targeting' to be found in Annex I 'Contents of the Programme Life File', including a great deal of tabulated poverty data which, in the interests of succinctness, are not reproduced here. This section therefore confines itself to the principal RACP-relevant findings, analysis and conclusions with respect to the current structure and dynamics of poverty in rural Armenia.

43. **Poverty Trends.** Armenia has made substantial progress in poverty reduction as summarised in Table 4 below, covering the decade 1998/99 to 2007. Strikingly, the

lowest incidence of extreme poverty<sup>12</sup> is in rural areas, indicating the importance of access to agricultural land as a mitigating factor. This point is discussed further below.

**Table 4: Reduction in the Incidence of Poverty 1998/99 to 2007**

	1998/99		2007			% Decline, between 1998/99-2007	
	Very poor (%)	Poor (%)	Very poor (%)	Poor (%)	Share, total population (%)	Very poor	Poor
Urban	26.2	62.1	4.6	24.7	64.5	82.4	60.2
Yerevan	24.8	58.4	3.2	20.0	33.6	87.1	65.8
Other urban	27.4	65.5	6.1	29.8	30.9	77.7	54.5
Rural	14.1	48.2	2.3	25.5	35.5	83.7	47.1
<b>Total</b>	<b>21.0</b>	<b>56.1</b>	<b>3.8</b>	<b>25.0</b>	<b>100</b>	<b>81.9</b>	<b>55.4</b>

44. Between 2004 and 2007 alone, more than 300 000 people moved out of poverty and, out of these, 83 000 broke free of extreme poverty. During the same period, the poverty gap fell from 7.4% to 4.9%, poverty severity fell from 2.4% to 1.5% and the deficit between the consumption of the poor and the poverty line, as a percent of the poverty line, fell from 21% to 19%. In short, poverty has not only been much reduced but that which remains has become shallower and less severe.

45. The SDP-PRSP2 attributes the size of the reduction, which considerably exceeded the targets of Armenia's first (2004) PRSP, to a combination of double-digit growth, increases in labour income, increases in pensions, increases in social transfers through a well-targeted family benefits (FB) programme and private transfers from abroad. **Economic growth** amounted to some 46.7% for 2004-2007 and was manifested in the same period by an increase of 33.6% in real average monthly consumption for the entire population. The **Family Benefit (FB) system** was introduced in 1999 to provide social assistance to needy families. Overall, the FB covers 17% of all Armenian households and over three quarters of the FB beneficiaries belong to the poorest 40 percent of the population. Private transfers, i.e. **remittances**, currently amount annually to around the equivalent of 20% of Gross Domestic Product (GDP), one of the highest levels in the world and, according to household survey data, they account for 55% of income for those who reported receiving internal or external remittances, and external remittances accounted for almost 60% of household income for those depending on them.

46. The reduction between 1998/99 and 2007 in the incidence of very poor people by over 80% and in the incidence of poor people by more than half is self-evidently a major achievement. Nevertheless, as may be seen from Table 4, a quarter of the population still remain below the poverty line.

47. With regard to the **regional distribution of poverty**, the overall tendency is that higher poverty incidence occurs in those *marzes* that are: (i) still affected by the severe 1988 earthquake; (ii) located in border areas; (iii) with a low share of irrigated land; and (iv) where the population is predominantly urban, with the exception of Yerevan city. It is rural urban centres that remain markedly and consistently poorer than

<sup>12</sup> The poverty data are derived from Integrated Living Condition Surveys (ILCSs) based on the actual consumption patterns of Armenian households. The food consumption patterns of these households are used to determine the cost of a 2 100 calorie diet per day per adult, i.e. the minimum food basket. The value of this minimum food basket is used as the extreme poverty line. Households whose consumption falls short of the value of the minimum food basket are considered to be extremely (very) poor. To determine the value of the complete poverty line, an allowance for essential non-food consumption items is added to the minimum food basket. Households whose consumption does not meet this poverty line are considered to be poor.

non-urban rural areas, while both are poorer than Yerevan City. The principal reasons for this regional distribution of poverty rest with: (i) post-Independence privatisation and redistribution of agricultural land; (ii) unexpectedly limited growth in employment; and (iii) a significantly skewed distribution of investment and growth in Yerevan as compared to the rest of the country.

48. A key lesson to be learned from the persistence of small farm agriculture (see Chapter I Section B above) is that it continues to play a vital mitigating role with respect to poverty as shown by three main correlates of **land and poverty: size of landholding; altitude** of landholding; and **access to irrigation**. As might be expected, the greatest poverty incidence tends to be among those with no land (50%). Poverty incidence then drops to its lowest levels for those with holdings of 0.2 to 0.5 ha (18.4%). However, incidence then tends to begin to rise again in the over 0.5 ha ranges (23-24.5%). This reflects the distribution of larger holdings at altitudes higher than 1 300 m above sea level during the land privatisation programme in order to compensate for harsher agro-ecological conditions. However, the relationship between altitude and poverty has been weakened, not by better agricultural productivity, but by greater social transfers as a result of recent modifications to the family benefits (FB) system.<sup>13</sup> Poverty/altitude data for 2006 show incidence at 22.1% for altitudes below 1 300 m, 19.0 for the 1 300-1 700 m range and 21.6% above 1 700 m. As noted above (in Chapter I Section A) irrigation is vital to the intensification and hence poverty-reducing profitability of agriculture. A promising indicator is that the share of very poor agricultural household able to irrigate 75-100% of their land moved from 47% in 2004 to 73.5% in 2007.<sup>14</sup>

49. A major consequence for Armenia of the economic collapse of the Soviet Union was a massive loss of jobs in the country's industrial, manufacturing and services sectors. This resulted in a 'flight to the country-side' under the programme of land privatisation and redistribution. As mentioned above (in Chapter I, Section B), the 2004 PRSP1 anticipated that with post-Independence economic recovery, jobs would be regained in the industrial, manufacturing and services sectors, leading to an outflow of labour from agriculture and a reconfiguration of agricultural production based on larger, more technically intensive and more market-oriented and competitive farms. This did not happen as a result of fewer but more productive jobs being created during the economic recovery. This has led to a situation of long-term structural **unemployment** and, in rural areas, **underemployment**, both of which are strongly correlated with poverty incidence. Moreover, as also noted earlier, the rural economy remains heavily dependent upon primary (smallholder) agricultural production with very little development of the **non-farm rural economy**. This situation has been maintained and aggravated in part by the **concentration of post-Independence investment in Yerevan** city which accounted in 2006 for over 72% of all investment in Armenia. A corresponding effect of this ongoing investment pattern was that GDP per capita in the same year was AMD 1405 000 in Yerevan as compared to AMD 39 300 in rural areas.

50. In overall terms **women** are not significantly more likely than men to be poor, having a 52% share of the population and a 55% share of the poor in 2007. However, the poverty incidence among male-headed households in 2007 was 23.4% compared to 29.6% for female-headed households and 33.2% for female-headed households. The respective figures for extreme poverty among these household categories in that year are 3.5%, 4.6% and 5.9%. Thus, women-headed households are more likely to be poor than male-headed households and this likelihood increases sharply if there are also children in the women-headed households, especially if they are less than five years old.

---

<sup>13</sup> Armenia: Economic Growth, Poverty and Labour Market Development in 2004-2007, Yerevan 2008.

<sup>14</sup> IFAD has made a significant contribution to this improvement having invested about USD 25 million in small-scale irrigation rehabilitation and development of Water Users Associations (WUAs).

Women represent around 40% of the workforce in agriculture and head 33% of rural households. The relatively high incidence of poverty among rural female-headed households is attributable to a combination of high dependency, low or non-existent remittances from migrant husbands, regulatory constraints to women accessing credit and lack of or low wage employment opportunities.

51. With regard to **food security and nutrition**, the United Nations Development Assistance Framework (UNDAF) 2010-2015 reports that the nutritional status of children has deteriorated from an estimated 2.6-2.7% in 1998-2000 to around 4% in 2005 and in 2007 the proportion of the population below the minimum level of dietary energy consumption was 3.8%. National Statistical Service (NSS) data for 2007 state that 50.7% of urban people and 38.7% of rural people were consuming less than 2 100 kilocalories per capita per day in that year. The lower percentage among the rural population would seem to reflect the importance of having land, from which people can provide for self-consumption.

52. According to a February 2009 report by the World Bank,<sup>15</sup> the **global financial crisis** poses serious challenges for maintaining the robust economic growth and poverty reduction that Armenia has enjoyed for much of the last decade. The dependence on **remittances** has already been noted above. Almost 80 percent of Armenia's migrant workers are in Russia. And most of them are engaged in the construction sector and anecdotal evidence already shows a substantial slowdown in Russia's construction sector. If all total remittances were to decline by 25%, a highly likely scenario given that the bulk of the remittances originate in Russia and from its construction sector, poverty rates among recipients of remittances would increase from 18% to over 21%. Furthermore, for the extreme poor, 60 percent of their income comes from public transfers, as either in the form of pension or Family Benefit (FB). A 25% decline in pensions and the targeted FB payments as a result of declining Government revenue would lead to about a one percentage increase in overall poverty incidence.

## **B. The Target Group, Including Gender Issues<sup>16</sup>**

53. The RACP's primary target group would be poor women and men smallholders, who would be comprehensively supported by the Programme to improve their horticulture (fruit and nut) production in a sustainable manner, which would both improve their subsistence base, including as such their food security and nutrition, and offer increased income-generating opportunities through greater engagement with markets. These beneficial developments would be facilitated by Programme support for improvements to rootstock, on-farm equipment relevant to orchard development, husbandry practices, market opportunities and appropriate financial products and also by improvements to off-farm and communal rural infrastructure.

54. A secondary target group would be other key stakeholders in the fruit and nut value chains, such as nurseries, processors and traders, notably exporters. It should be noted that this support is directed to maximising benefits among the primary target group in terms of increasing demand for their production and also in terms of generating full-time and seasonal employment among poor non-agricultural rural people, something which, as has been described above, is desperately needed for poverty reduction in the rural economy.

55. A tertiary target group are the general population of disadvantaged mountain area communities and actual and potential entrepreneurs within those communities, whose livelihood opportunities would be enhanced through RACP support to water development and management, gasification and road rehabilitation and construction (see

---

<sup>15</sup> 'ARMENIA: Implications of Global Financial Crisis for Poverty', World Bank, February 2009.

<sup>16</sup> See also Working Paper 1.



below). Such support is also directed to poverty-reduction through laying the necessary basis for business development and associated employment creation and rural economic diversification.

56. A very important segment of the target groups comprises women in view of the significant role they play in agriculture, as described earlier (see below).

### **C. Targeting, Investment Strategies and Gender Mainstreaming<sup>17</sup>**

57. The RACP's targeting strategy combines a demand-driven modality with geographic targeting, self-targeting in terms of the types of Programme benefits available and direct targeting, i.e. application of eligibility criteria.

58. Programme **geographic targeting** is determined in two ways: first and foremost by poverty and secondly by agro-ecological considerations. Fruit and nut production in Armenia occurs at relatively high altitudes where, as noted above, there are concentrations of poor people due to the harsher agro-ecological conditions. A preliminary identification has been made of a Programme pilot area (see Section D below) with respect to RACP Component 1 Support to Fruits and Nuts Sector. This pilot area is based on poverty and agro-ecological considerations. Under RACP Component 2, Sub-component 2.2 Rural Transport Investments (RTI) would be tied geographically and complementarily to investments under Component 1, while sub-component 2.1 Public Utilities Investments (PUI) would have a wider geographic scope based on poverty criteria. Eventually Component 1 is expected, subject to pilot experience, to eventually have national coverage.

59. Within the above framework, on-farm and infrastructure investments would be demand-driven and **self-targeting** in terms of types and upper financial limits. Publicity campaigns would be conducted in the Component 1 pilot area and the wider geographic area identified for Component 2 concerning Programme-sponsored opportunities.

60. If an interest is expressed, **direct targeting** would then apply in terms of assessing and prioritising applications on the basis of eligibility criteria. On-farm Component 1 investments would be assessed in terms of: (i) residence; (ii) poverty status of farm family; (iii) availability of suitable land (minimum 1 ha, maximum 2 ha) and adequate water availability for drip-fertigation; (iv) clustering of applicants; (v) acceptability of contract farming arrangements; and (vi) assessment as environmentally sound. Under Component 2 PUI applications would be assessed and prioritised in terms of: (i) community located in disadvantaged rural mountain areas, manifested in terms of lack of assets and income, e.g. landlessness, small holdings, unemployment and negligible off-farm enterprise development; (ii) number of individuals assisted per USD 1 000 of investment; (iii) commitment by the applicants to invest a minimum of 10% of the total cost; (iv) technical feasibility; (v) sustainable procedures for operation and maintenance of the proposed facility, endorsed by the responsible institution; (vi) number of small businesses/economically active individuals directly benefiting from the investment; (vii) expected improvements to health and (viii) assessment as environmentally sound; while RTI investments would be assessed and prioritised with respect to: (i) linkage to Component 1 Support to Fruits and Nuts Sector; (ii) number of individuals assisted per USD 1 000 of investment; (iii) commitment by the applicants to invest a minimum of 10% of the total cost; (iv) technical feasibility; (v) sustainable procedures for operation and maintenance of the proposed facility, endorsed by the responsible institution; and (vi) assessment as environmentally sound.

---

<sup>17</sup> See also Working Papers 1, 2 and 3.

**REPUBLIC OF ARMENIA: RURAL ASSETS CREATION PROGRAMME (RACP)  
PROGRAMME FINAL DESIGN REPORT  
MAIN REPORT**

61. As noted, **women** play a very significant role in the rural economy, providing 40% of the workforce and heading a third of rural households. As also already noted, women-headed households are likely to be poorer than male-headed households. Accordingly, Programme targeting and benefits delivery will systematically take gender considerations into account as a matter of priority. At this stage of RACP design, it is expected therefore that: (i) at least a third of contracted farm households contracted under Component 1 will be woman-headed; (ii) in cases where contracted smallholder farm families under Component 1 are headed by a resident married couple then the wife as well as the husband will sign the contract; (iii) at least a third of recipients of financial products developed under the Programme will be women;<sup>18</sup> and (iv) at least 40% of seasonal and permanent jobs generated by Programme-supported activities (primary production, harvesting, nurseries, processing, trading) will be filled by women.

62. In addition, an application is being made for grant funding of USD 100 000 dedicated to action to: (i) assure that eligible poor rural women will be made fully aware of and fully access the benefits available under the RACP; (ii) mainstream gender into RACP management; (iii) identify through needs assessment methods the best development support for poor rural women, both within and in addition to the provisions of the RACP; and (iv) and continue implementation of the IFAD-supported regional programme for 'Capacity Building and Knowledge Management for Gender Equality'. Draft Terms of Reference for a Gender Focal Point/Coordinator to undertake these actions are provided in Annex VI to this Main Report.

63. The key RACP targeting measures are summarised by its principal investment components in Table 5 below.

**Table 5: Beneficiary Targeting and Analysis**

<b>Beneficiary Targeting and Analysis</b>	<b>Component 1: Support to Fruits and Nuts Sector</b>	<b>Component 2: Rural Infrastructure</b>
Main Beneficiaries	Poor current and potential smallholder producers of fruit and nuts.	All poor target groups (PUI) and poor target groups linked to Component 1.
Main Benefits Derived	Increased yields. Better food security and nutrition Enhanced access to investment capital. Improved market access. Increased incomes. Increased seasonal and full-time employment. Sustainable natural resource use.	Increase in economic activity, social wellbeing, e.g. health, and environmentally sound natural resource management facilitated by improved infrastructure that benefits all target groups.
Targeting Types	Geographic Targeting. Self-targeting. Direct targeting.	Geographic Targeting. Self-targeting. Direct targeting.

<sup>18</sup> Currently women beneficiaries amount to around 8% of rural debt-financing portfolios. Programme Analysis and Administration Unit (PAAU) data.

**REPUBLIC OF ARMENIA: RURAL ASSETS CREATION PROGRAMME (RACP)  
PROGRAMME FINAL DESIGN REPORT  
MAIN REPORT**

**Table 5: Beneficiary Targeting and Analysis (cont.)**

<b>Beneficiary Targeting and Analysis</b>	<b>Component 1: Support to Fruits and Nuts Sector</b>	<b>Component 2: Rural Infrastructure</b>
Targeting Measures	<p>Focus on relatively high altitude areas with concentrations of rural poor people</p> <p>Types and upper financial limits of Programme-supported investments</p> <p>Eligibility criteria including: (i) residence; (ii) poverty status of farm family; (iii) availability of suitable land (minimum 1 ha, maximum 2 ha) and adequate water availability for drip-fertigation; (iv) clustering of applicants; (v) acceptability of contract farming arrangements; and (vi) assessment as environmentally sound.</p> <p>Women-specific targeting measures including: (i) at least a third of contracted farm households contracted under Component 1 to be woman-headed; (ii) in cases where contracted smallholder farm families under Component 1 are headed by a resident married couple then the wife as well as the husband will sign the contract; (iii) at least a third of recipients of financial products developed under the Programme to be women<sup>19</sup>; and (iv) at least 40% of seasonal and permanent jobs generated by Programme-supported activities (primary production, harvesting, nurseries, processing, trading) to be filled by women.</p>	<p>Types and upper financial limits of Programme-supported investments</p> <p>PUI applications would be assessed and prioritised in terms of: (i) community located in disadvantaged rural mountain areas, manifested in terms of lack of assets and income, e.g. landlessness, small holdings, unemployment and negligible off-farm enterprise development; (ii) number of individuals assisted per USD 1 000 of investment; (iii) commitment by the applicants to invest a minimum of 10% of the total cost; (iv) technical feasibility; (v) sustainable procedures for operation and maintenance of the proposed facility, endorsed by the responsible institution; (vi) number of small businesses/economically active individuals directly benefiting from the investment; (vii) expected improvements to health; and (viii) assessment as environmentally sound, while RTI investments would be assessed and prioritised with respect to: (i) linkage to Component 1 Support to Fruits and Nuts Sector; (ii) number of individuals assisted per USD 1 000 of investment; (iii) commitment by the applicants to invest a minimum of 10% of the total cost; (iv) technical feasibility; and (v) sustainable procedures for operation and maintenance of the proposed facility, endorsed by the responsible institution; and (vi) assessment as environmentally sound.</p>
Enabling and Capacity Building Measures	<p>Publicity campaigns for both components.</p> <p>Operations Manuals for both components.</p> <p>Comprehensive training to current and potential poor smallholder fruit and nut producers backed by international and national Technical Assistance.</p> <p>Comprehensive support to the fruit and nut value chains in terms of production (technology transfer through contract farming and training of non-contract small farmers and nurseries), processing (equity financing), and marketing (market research, information, development and consolidation systems), including support to attaining internationally accepted food safety measures and export certification.</p> <p>Introduction of debt-financing instruments geared specifically to modern orchard development.</p> <p>Provision for supplementary sector studies.</p> <p>Gender mainstreaming in all aspects of Programme planning, implementation and monitoring.</p> <p>Annual Stakeholder Review and Planning Workshops.</p> <p>Provision for participatory appraisals and impact monitoring.</p> <p>Information exchange and dissemination with other relevant national and regional (South Caucasus) programmes.</p>	

<sup>19</sup> Currently women beneficiaries amount to around 8% of rural debt-financing portfolios. Programme Analysis and Administration Unit (PAAU) data.

#### **D. Geographic Coverage of the Programme**

64. The RACP will be implemented over a period of five years, anticipated as 2011 to 2015. The Programme is intended to move towards coverage of all Armenia's rural areas with the exception of Ararat marz, as permitted by agro-ecological suitability, Programme experience and available resources. Initially the Support to Fruits and Nuts Sector component and complementary financing under the Rural Transportation Investments (RTI) sub-component of the Rural Infrastructure component will focus on the marzes of Tavush, Vayots Dzor and Talin District of Aragatsotn, while the Public Utilities Investments (PUI) sub-component of the Rural Infrastructure component, taking advantage of and building upon investments and experience under earlier IFAD-financed projects, will proceed from a wider geographic remit including the marzes of Shirak, Lori, Tavush, Aragatsotn, Gegharkunik, Vayots Dzor and Syunik.

### **III. PROGRAMME DESCRIPTION (KSF 3)**

#### **A. The Knowledge Base: Lessons from Previous/Ongoing Programmes**

65. All five projects financed to date by IFAD in Armenia have focused on and been shaped by two key considerations: the need for initiatives that generate agricultural economic growth if sustainable benefits are to be achieved and the need for related institutional development, both needs being particularly urgent in the context of a transitional economy and an agricultural sector characterised by numerous, poor smallholdings. The principal lessons which emerged from the first three projects, the Irrigation Rehabilitation Project (IRP), the Northwest Agricultural Services Project (NWASP) and the Agricultural Services Project (ASP) and which were elaborated in the findings of the 2001 Project Completion Evaluation of NWASP and the 2002 External Review of the Results and Impact of IFAD Operations were: (i) providing essential elements for productive activities had a quick impact on rural poverty reduction; (ii) what was still needed however was a longer-term strategy of moving beyond a focus on improved input supply (seed, animal health services, irrigation, smallholder financial services) and taking into account and addressing processing and marketing constraints; (iii) the role of Government was best directed to policy, coordination and regulation rather than implementation; (iv) ensuring benefits to poorer people unable to qualify for support under the projects and explicitly incorporating the expressed needs of women into investment proposals; and (v) the implementation modality of having a project management unit/Programme Analysis and Administration Unit which contracted out project activities to agencies in the public, private and NGO sectors had proven to be effective and efficient and provided valuable institutional and managerial continuity in the context of often rapid re-arrangements of Government structures that reflected Armenia's ongoing political and economic 'transition'.

66. On the basis of the above lessons, the fourth IFAD-financed initiative, the Rural Areas Economic Development Programme (RAEDP), which started in 2005, sought to deliver an inter-related package of business development training and loans for investment and working capital for small and medium on and off farm private enterprises and grant financing of commercially justifiable infrastructure in the public domain and public-private partnerships. In so doing, it retained the focus on poverty-reducing smallholder growth in production and productivity and related institutional development to service that growth, especially in rural finance (introduction of a Rural Finance Facility to re-finance debt financiers in the agriculture/rural economy sectors), but also set it in the larger context of value chain development, linkage to markets, diversification of the rural economy, poor smallholder commercialisation and a Government-initiated but finally private sector driven approach as part of transition. The managerial approach of PAAU/Implementing Partners was also retained. The RAEDP is, at the time of writing,

subject to the preparation of a Programme Completion Report. Interim lessons are: (vi) the importance of staying focused on central wealth-creating themes which have characterised the portfolio's evolution from the outset, notably those of rural financial services development and improvements to enterprise-related, small-scale infrastructure; (vii) maintaining simple design concepts; and (viii) the introduction of HACCP, GGAP and ISO standards are critically important for reducing marketing risks.

67. The fifth IFAD-financed initiative, the Farmer Market Access Programme (FMAP) built both upon the experience of IFAD's portfolio in Armenia and heeded anticipated lessons from RAEDP by limiting itself, in the interests of simplicity to three components: Rural Finance; Rural Infrastructure; and Programme Organisation and Management. The Rural Finance component reflected a continuing of the value chain perspective by providing for: equity financing as a means of circumvent debt-financing collateral constraints at the upper end of the value chain (an institutional innovation in the form of establishing a Fund for Rural Economic Development in Armenia (FREDA)); Investment Loans through the RFF to agro-related small and medium enterprises (SMEs) in the mid-range of the value chain; and Farmer Loans through RFF, maintaining access to affordable debt financing at the primary production level of the value chain. In addition, specific provisions were made for targeting poor rural women. As yet, it is too early to identify lessons from FMAP implementation, which only became fully operational in 2009.

68. During RACP design, some further lessons emerged, these being: (ix) the continuing existence of a poor smallholder-based agriculture sector for the foreseeable future<sup>20</sup>; and (x) lessons from contract farming in Armenia and elsewhere.<sup>21</sup> The reasons for the continuing vital contribution of smallholder agriculture to poverty mitigation have already been described above. Lessons on contract farming, which is central to the RACP, include: (a) ceiling and floor prices lead to stability of contracts; (b) financial depth and long term marketing contacts on the part of the contracting company lead to stability in the face of short-term market fluctuations; and (c) recourse to the law in the event of contract violations is the least satisfactory and predictable basis for contract farming.<sup>22</sup>

69. The above lessons have been taken into account in RACP design as described below.

## **B. Opportunities for Rural Development and Poverty Reduction (The Rationale)**

70. The Programme's rationale flows from the recognition, described above, that further rural poverty and regional socio-economic disparity reduction in Armenia must be set, for the foreseeable future, in the context of predominantly smallholder production and, secondly, must address the constraints of highly limited and low-paid rural employment opportunities outside own-farm self-employment and the very low development and diversification of the non-farm rural economy. Further progress in rural needs to address these two issues effectively and sustainably, especially since, as noted, the ongoing financial crisis may well inhibit Government's ability to deploy mitigating social transfers. Central to addressing these issues successfully will be linkage of rural producers, processors and traders to existing and emerging high-value export and domestic markets by achieving production and productivity gains in agricultural products

---

<sup>20</sup> See also Working Paper 1 Poverty and Targeting in Annex I 'Contents of the Programme Life File'.

<sup>21</sup> See also Working Paper 2 Support to Fruits and Nuts Sector in Annex I 'Contents of the Programme Life File'.

<sup>22</sup> See for instance: Jorma Ruotsi: "Agricultural Marketing Companies as Sources of Smallholder Credit: Experiences, Insights and Potential Donor Role", IFAD Publication (Rome 2003).

manifested in terms of quality, quantity, consistency and market competitiveness as a result of modern technology transfer and comprehensive support along key agricultural value chains where Armenia has an actual or potential comparative and competitive advantage.

71. For many traditional high value crops the domestic demand is beginning to level off. It is therefore necessary to choose produce with strong demand on the export market in order to sustain the return to the poor smallholder farmers. Detailed demand analysis in Working Paper 2 shows that fruits and nuts have experienced a steady increase in total volume exported coupled with a steady increase in prices justifying the choice of their value chains for Programme support. Both the slow but steady increase in volume and the steady rise in prices provide a good foundation for investing in orchards for the chosen value chains with good prospects to generate long term sustainable income for poor smallholder farmers.

72. Armenia has a comparative advantage for producing the chosen crops including an almost optimal climate with hot dry summers and the crops growing at relative high altitude. These conditions, combined with plenty of irrigation water and suitable soils, enhance the flavour of the fruit and nuts and lower pest and diseases pressures. In the short term Armenia could become competitive on the Russian market and in the medium term on part of the EU market. However this would require the introduction of modern orchard technologies together with the varieties demanded by the export market combined with upgrading of the post harvest handling of produce and full implementation of internationally recognised production and food safety standards.

73. It is proposed under the Programme to establish a Joint Stock Company, 'Fruit Armenia' (FA), as the principal vehicle for delivery of Programme support to the fruit and nuts value chains. This proposal is driven by the relative weakness and diffusion of current relevant public institutions on the one hand, e.g. the research and extension services, and the fragmentation of potentially relevant private sector organisations on the other hand. Neither the public institutions nor the private organisations have the inter-related multi-disciplinary technical capacity to deliver the vertically-integrated support necessary for effective and efficient modernisation of the fruits and nuts sector nor the financial strength to combine profitable business development in the sector with the social objective of rural poverty reduction. Fruit Armenia is designed to address these key constraints.

74. The analysis of the physical constraints affecting the rural areas and of the planned investments for infrastructure rehabilitation, detailed in Working Paper 3, highlight an obvious need for the RACP to continue investments for the improvement of public infrastructure in mountain communities. Complementary and focused investments in rural infrastructure facilities are required to reduce pressure on natural resources, create opportunities for the rural population and to raise overall levels of economic activity necessary for the development of the both the on farm and off farm sectors.

75. The poor status and service level of public utilities in disadvantaged mountain communities negatively affect the health and productivity of the rural population. Lack of access to gas and water supply and unsanitary disposal of wastewater and solid waste are direct causes of environmental degradation and severely hamper sustainable future development.

76. The rehabilitated off-farm irrigation mains have already created or are in the process of creating the technical conditions for the extension/rehabilitation of on farm (tertiary level) lines at several locations in the country, including areas with optimal agro-ecological conditions for the cultivation of the high-value crops selected for RACP support (apricots, nectarines and walnuts).

77. Besides the improvement of access to irrigation, targeted public investments in rural transport infrastructure are required to achieve overall operational efficiency of the proposed Programme-supported value chains by reducing the transport cost and transport-related produce damage and facilitating farmer's access to the services extended by the Programme.

78. Experience from ongoing government and international donor activities demonstrate that improved infrastructure and environmental management, combined with technology transfer, appropriate financing instruments and processing and marketing assistance in a holistic and programmed way, are effective means of supporting rural development in Armenia.

79. Considerations that have shaped the design of the RACP include: (i) compliance with Government strategies and policies, as cited above; (ii) compliance with IFAD's strategies and policies as cited above; (iii) the urgent and well recognized need to support potentially more technically, economically and financially efficient poor small-scale farmers in moving towards sustainable agriculture that takes advantage of existing and emerging markets in a way that improves their livelihoods in general and boosts in particular their incomes, food security and nutrition; (iv) simplicity of implementation; (v) criteria-based targeting of programme interventions; (vi) minimisation of risk through comprehensive and systematic modern technology transfer, support to key elements of profitable agricultural value chains, and development of appropriate, affordable financing modalities; and (vii) complementarities with and lessons learned from the two ongoing IFAD-financed Programmes in Armenia, the Rural Areas Economic Development Programme (RAEDP) and the Farmer Market Access Programme (FMAP).

### **C. Programme Goal and Objectives**

80. The overall goal of the RACP is to reduce rural poverty in Armenia. Its objective is to establish an economically viable fruits and nuts sector with backwards linkages to poor rural smallholders.<sup>23</sup>

### **D. Alignment with Country Rural Development Policies and IFAD Strategies**

81. The alignment with country rural and agricultural development policies and IFAD strategies is detailed in Chapter I. The Programme would be fully aligned with Armenia's Sustainable Development Programme (SDP-PRSP2) and its 2006 Agricultural Sustainable Development Strategy along with the IFAD Strategic Framework 2007-2010, the current IFAD COSOP and IFAD policies on targeting, rural finance and the private sector.

### **E. Programme Components**

82. The RACP would have three components: (i) Support to Fruits and Nuts Sector; (ii) Rural Infrastructure and (iii) Programme Management.

83. **Component 1, Support to Fruits and Nuts Sector (USD 13.5 million)**<sup>24</sup> would seek to increase poor smallholder assets and incomes in the Programme area through linking them more profitably to the Armenian fruit and nut value chains, in which Armenia has historically and potentially a significant comparative advantage in what is a high-value market both internationally and domestically with considerable unmet demand. This linkage would be achieved through a comprehensive package of modern technology transfer to poor smallholder primary producers and associated job creation among processors and traders, complemented by support to other key aspects

---

<sup>23</sup> See also Annex IV Logical Framework.

<sup>24</sup> See Working Paper 2 'Support to Fruits and Nuts Sector' for more details.

of the value chain. Accordingly, the component would have two sub-components: Establishment of Fruit Armenia; and Promotion of Standards and Exports.

84. **Sub-component 1.1 Establishment of Fruit Armenia (USD 12.95 million).** As already noted above in the section on Programme rationale, the establishment of Fruit Armenia is designed to address the need for a strong, vertically integrated and enterprise-led approach to achieving a profitable and hence sustainable modernisation of the Armenian fruit production that would specifically benefit poor smallholder producers.

85. The core FA activities would include intensive fruits and nuts production with modern production technology based on **farming contracts** with smallholders as well as the selling of the resulting produce to buyers in the local but especially in the export markets. In order to maximise beneficiaries while retaining economic viability, each contracted farm family would be eligible to establish or modernise an orchard area which would be not less than 1 hectare in total but not more than 2 hectares. The anticipated contract farming arrangements are described below in Chapter IV, Section B under 'Component Management, and in Working Paper 2 provided in Annex I 'Contents of the Programme Life File'.

86. The **legal status of FA** would be an open Joint Stock Company (JSC), established with a share capital of USD 1.7 million, all in ordinary shares that can be later easily traded and which all carry the same full voting rights. Since Government, either from its own resources or from the IFAD loan, will provide all the initial funding for FA, so it will originally have 100% **ownership** of the share capital of FA. However, one of the key strategies for FA is to diversify the ownership structure of the company as soon as its operations have adequately matured to attract external investors. Consequently, an initial priority for Fruit Armenia would be the drawing up of a detailed 3-5 year Business Plan for the company (see more below), including comprehensive specification of its divestment policy, which would be directed to reducing and eventually eliminating Government ownership in the company on the basis of full recovery of Government's investments in the company and achieving complete privatisation of the enterprise. Farmers contracted by Fruit Armenia as well as strategic investors in the fruits and nuts sector would have the opportunity to acquire shares in the company. The models of trading the shares through share options and public offers will be defined in detail in the Business Plan when the final agreements of the financing and operational plans for FA have been reached on between the financiers. The pricing of the shares will largely depend on the success of the company in its production and sales operations, and the future advantages the potential buyers expect to receive from their shareholding in Fruit Armenia JSC. The decision-making bodies of Fruit of Armenia would be independent of the PAAU.

87. With regard to **the funding structure of FA**, Government would, from a total IFAD loan allocation of USD 10.2 million provide in the following sequence: (i) USD 1.7 million in the form of Government-owned equity. This corresponds roughly with the total operational costs required for FA until the company is expected to break even in Programme Year (PY) 4<sup>25</sup>; (ii) USD 1.5 million in the form of a grant. This reflects approximately the initial investment costs in various types of equipment and vehicles that are required to make FA operational; and (iii) after the equity and grant resources are fully used, USD 7 million in the form of a long-term loan. This corresponds approximately to the total cost of establishing and maintaining 700 ha of modern orchards on smallholders' land. This loan to FA would be for 10 years, with a grace period of three years without either interest or principal payments, then equal repayments of the capital in the remaining 7 years and with an interest rate of 1.5%.

---

<sup>25</sup> See Working Paper 5 Financial and Economic Analysis for a model of FA. The model assumes that FA pays 3% dividends on the nominal value of this equity capital annually starting from PY5, though obvious the actual payment will depend on FA's real success and profitability.



88. In addition, Government will provide about USD 2 million to FA as compensation for various taxes and otherwise unused land and buildings to the value of USD 0.3 million mainly for FA's central nursery.

89. Finally, an IFAD grant of USD 0.5 million will be used to fund critical, senior and most likely international Technical Assistance to FA in its first three and a half to four years of operation, mainly in the capacity of its Executive Deputy Director.

90. The **organisational structure of Fruit Armenia** would comprise a Board of Directors, an Executive Director and an Executive Deputy Director (internationally-recruited Senior Technical Advisor), a Financial Manager, an Accountant, a Lawyer, a Value Chain Manager; a Business Development Advisor; and an assistant/secretary. In addition there would be four FA Operational Departments: the Nursery Department (ND); the Orchard Development Department (ODD); the Produce Handling Department (PHD); and the Marketing Department (MD).

91. While Government at the time of FA's registration would own all the company's shares it has been agreed with Government during the RACP design process that from the outset **FA's Board of Directors** would have a majority of private sector representatives. Accordingly, FA's initial Board of Directors is expected to comprise: a representative of the Ministry of Agriculture; a representative of the Ministry of Finance; a representative of the Ministry of Economic Planning (Department of Small and Medium Enterprise Development); a representative of the Federation of Agricultural Associations; a representative of the Union of Exporters in Armenia; and two (2) senior representatives of the horticultural private business sector with interest in the successful development of Fruit Armenia JSC (such as potential large-scale buyers of its products). Chairmanship of the Board would rotate annually.

92. A performance contract would be signed between the Government of Armenia and Fruit Armenia, where development objectives and targets and commercial objectives and targets would be clearly spelled out. In addition, the contract would link compensation of senior management of Fruit Armenia to their performance, and specify that, as far as possible, services to be delivered by Fruit of Armenia would be subcontracted to private sector providers, which would be engaged through competitive bidding processes. IFAD disbursements to Fruit Armenia would be limited to US\$ 300,000 until a performance contract, satisfactory to IFAD, has been signed.

93. The **Nursery Department (ND)** would consist of a central nursery of 15 ha of land, a tissue laboratory, mother trees for root stock multiplication, and mother trees for multiplication of selected varieties. The nursery would be able to produce 1 000 000 rootstock per year, 300 000 for FA's own sapling production on contracted farms and 700 000 for sale to private nurseries and non-contracted interested farmers. The root stock with late flowering would particularly be selected for Armenian mountainous conditions in order to avoid late frost damages.

94. The **Orchard Development Department (ODD)** would be the key field department of the FA, responsible for most activities with the contracted farmers. In FA's core operation to establish 700 ha of modern orchards on contracted small farms, the ODD's duties would include orchard establishment, orchard management, field post harvest handling and produce traceability.<sup>26</sup> The ODD would consist of six orchard

---

<sup>26</sup> When FA start to generate operational profits, the plan is that a substantial share of these profits would be re-invested in new orchards under contract farming arrangements. This policy would both strengthen FA as a company and widen its positive impact on incomes and assets of Armenian smallholders.

production teams, each comprising of one agronomist and an assistant also doubling as tractor driver, and tractors with all necessary equipment for orchard establishment and management. Each orchard team would be responsible for: (i) establishing the orchards according to the technical specifications set out in the contract farming agreement; (ii) training the contract farmers in all aspects of orchard management, including appropriate training related to Global Good Agricultural Practices (GGAP), Hazard Analysis and Critical Point Control (HACCP), integrated pest management (IPM) and environmentally sound pesticide, fertiliser and water resource use; (iii) preparing the annual schedule of orchard activities and the duties of the contract farmers; (iv) supervising the contract farmers; and (v) organizing the picking of fruits and nuts and hiring the additional labour needed besides that of the contract farmer's family.

95. The **Produce Handling Department (PHD)** would include a pack house, a pre-cooling unit and a cold storage facility for stone fruit, able to handle two days of picked fruit at the peak of the season. The PHD would also have a processing unit for walnuts, able to dry the nuts, sort them according to size and vacuum pack them. Besides being in charge of the pack house and cold storage, the PHD would also train the picking teams of the ODD in fruit picking and field sorting, and provide HACCP-related training on handling of fresh produce.

96. The **Marketing Department (MD)** would be responsible for domestic and international sales, organizing the logistics of sales, branding and advertising, and the post-sales services. The MD would also advise the ND on the trends in new varieties demanded by processors, the domestic fresh market and the export market. The marketing strategy of FA may at a later stage require the establishment of more permanent FA presence in the main markets, either through agency arrangements or by setting up separate marketing offices for FA in the key market centres abroad.

97. Draft **Terms of Reference** for the senior management and department heads of FA are given in Annex VI to this Main Report and Appendix 1 of Working Paper 2 which can be found in Annex I to this Main Report 'Contents of the Programme Life File'. The detailed responsibilities of each senior officer in these TORs provide more insights into the types of activities each of the departments of FA are expected carry out in FA's fruits and nuts value chain operations from the contracted fields to the final markets.

98. **Sub-Component 1.2 Promotion of Standards and Exports (USD 0.55 million)** addresses the need, if RACP benefits are to be fully realised, to improve the overall reputation and visibility of Armenia's horticultural produce on the international market, initially particularly in Russia and other members of the Commonwealth of Independent States (CIS), but later on also in the European Union (EU). To achieve this, the Programme would under this sub-component provide support to: (i) two Government agro-related laboratories – the Central Seeds Laboratory (CSL) and the Anti-epizootic and Diagnostic Residual Pesticide/Antibiotic Food Safety Laboratory (ADRP); (ii) Export promotion through the Union of Exporters of Armenia (UEA); and (iii) Training to interested poor smallholder fruits and nuts producers not contracted by FA and to private sector nurseries wanting to modernise their input provision to fruits and nuts production in Armenia.

99. **Programme support to the Central Seeds Laboratory (CSL)**, which is charged with issuing import certification for planting material and for certification of locally produced planting material, would include: (a) A study tour for two persons from the CSL to get firsthand experience from a recognised laboratory of the same type in the EU, particularly with regards to establishing an effective certification system for nurseries and the traceability system of planting material through the use of standard GoA labelling; (b) TA for the development/procurement of software able to trace imported and domestically produced planting materials; (c) Microscopes and other required equipment to analyse for virus, bacteria, and nematodes in planting material; and

(d) Tags to be used in the certification process. This support is intended to strengthen its certification capacity, a role critical to modernisation of the fruits and nuts sector and hence to the successful implementation of the RACP.

100. **Programme support to the Anti-epizootic and Diagnostic Residual Pesticide/Antibiotic Food Safety Laboratory (ADRP)** would provide for a back-up Gas Chromatography-Mass Spectrometry system to assure the laboratory's becoming ISO 9001 and 17025 accredited and having a reliable capability to issue internationally recognised pesticide and antibiotic residue export certification, which is a precondition for exports to the EU and is increasingly also required by the large supermarket chains in Russia and the CIS countries. As in the case of CSL above, ADRP's role and status in food safety/export certification may be seen to be critical to modernisation of the fruits and nuts sector and hence to the successful implementation of the RACP.

101. Programme Export Promotion Support to the Union of Exporters of Armenia (UEA) would include: (a) Funds to upgrade UEA's website into an effective, internationally known export promotion tool. This interactive website would include a computerised Trade Information Service (TIS) unit. The TIS would provide timely information on potential markets and products demanded by these markets. The website could also guide foreign importers to appropriate Armenian firms, and actively support this type of business contact creation; (b) RACP would support the development of a National Manual for Export of Fresh Produce (NMEFP). The NMEFP would provide information on industrial standards for exporters of horticultural produce including: (i) GGAP requirements, list the available training institutions, list of institutions providing GGAP certification and a breakdown of total cost to become GGAP certified; (ii) HACCP procedures, list of the available training institutions, list of institutions providing HACCP certification and a breakdown of the total cost for obtaining a HACCP certificate; (iii) organic certifications requirements, list of institutions providing training in organic certification, list of institutions certifying organic producers, exporters and processors and the breakdown of costs involved in becoming organic certified; (iv) SPS export procedures, inspection locations, necessary documentation and costs, and export certification procedures and related cost; and (v) customs requirements and duration of waiting at border crossings. The National Manual would be updated on a periodic basis (i.e. at least annually) to reflect the continuing evolution of import requirements in Russia, other CIS members and the EU; (c) Funds and other resources to: (i) carry out market research in defined target markets for Armenia and formulate market entry and market consolidation strategies for chosen markets and provide export advisory services to exporters to take advantage of the identified market opportunities; (ii) organize trade missions for potential importers of Armenian horticultural produce; and (iii) organise trade fairs and exhibitions, and related activities, including information dissemination and trial shipments; and (d) Resources to build capacity among horticultural exporters through various types of events such as export awareness workshops with respect to costing and pricing, export packaging, transportation, quality standards and market development. These events would in most cases be organised as joint events with respective government departments and other Armenian export support organisations/projects.

102. Finally under this sub-component, the RACP would provide training to non-contracted poor smallholder farmers and to private sector nurseries supplying the fruits and nuts sector.

103. **Nurseries.** More than half of the high quality planting material produced in the FA central nursery (see above) is meant for sales to other local nurseries. However, FA would only sell planting material (rootstock and variety bud sticks) to nurseries certified and registered with the CSL. Therefore, RACP would support FA to engage the 12 semi-professional nurseries in the country to undergo upgrading in their operations in order for them to become professional nurseries duly certified and registered with CSL. The up-grading training to be given by FA would include: (i) GOA/CSL rules and regulations

for the planting material industry; (ii) requirements for nursery certification and registration; (iii) production of root stock; (iv) production of grafting material from varietal bud sticks; (v) grafting techniques; (vi) rooting techniques for rooting bud-sticks in bottom-heated greenhouses; (vii) certification of planting material and labelling; and (viii) orchard and nursery husbandry practices.

104. **Non-contracted Farmers.** Provision has been made for the Programme to offer training to poor smallholders who wish to attain the benefits of modernising their fruits and nuts orchards but not necessarily on the basis of their being contracted to FA. This training would be available four times a year and be conducted by the FA staff at the FA nursery and at orchards under the contract farming arrangement. The training would be a practical, field-level approach including: (i) choosing the right species and varieties; (ii) establishing the orchard including, land preparation, planting, erecting trellises and installation of drip-fertigation; and (iii) orchard management involving weeding, drip-fertigation, pest and disease management, pruning, fruit thinning, fruit handling and harvesting, and post-harvest management.<sup>27</sup> The training programme would also inform the farmers about financial institutions that are potentially interested in supporting orchard development by individual farmers.

105. RACP/FA training for both nurseries and non-contracted farmers would also include **assistance in linking to credit sources**. As discussed earlier in this report, opportunities for borrowing from banks but especially from credit institutions have improved and are likely to improve further even for small-scale farmers, especially as the collateral requirements by various financial institutions have recently started to become more modern and liberal. Receipt of technical training from FA will greatly strengthen applications to these emerging credit opportunities.

106. **Component 2, Rural Infrastructure (USD 35.9 million)**<sup>28</sup> would address the need of continued public investments in Rural Infrastructure in order to: (i) improve livelihoods and economic growth in disadvantaged rural communities; and (ii) to support the achievement of the full economic potential of the beneficiary clusters identified and supported under Component 1, Support to the Fruits and Nuts Sector. Accordingly the Rural Infrastructure component would consist of two sub-components: Public Utilities Investments (PUI – USD 31.4 million) and Rural Transportation Investments (RTI – USD 4.5 million).

107. The **PUI sub-component** would support investments for the construction or rehabilitation of public utilities that IFAD experience in Armenia has shown to be critical for the economic development and well-being of poor, rural communities. The targeted communities would be located in disadvantaged mountain areas with high poverty incidence manifested in terms of lack of assets and income, e.g. landlessness, small holdings, unemployment and negligible off-farm enterprise development. Eligible investments would include: (i) water supply; (ii) natural gas supply; and (iii) storm-water drainage.<sup>29</sup>

---

<sup>27</sup> Training would be made with reference to GGAP, HACCP, IPM and environmentally sound fertiliser, pesticide and water resource use.

<sup>28</sup> See Working Paper 3 'Rural Infrastructure' for more details.

<sup>29</sup> In addition, the Programme Analysis and Administration Unit (PAAU – see Chapter IV below) is exploring opportunities for raising grant financing for pilot initiatives and associated specialized International TA in areas of *Solid Waste Management and Disposal*, which has become an increasingly critical environmental issue in Armenia, posing a threat to human health and to activities such as agricultural production and rural tourism where the elimination of pollution is all-important. However, at the time of writing no appropriate financing has been secured. If financing is obtained during RACP implementation, Programme management will ascertain whether it makes sense to carry out the solid waste management initiatives as an element of the PUI sub-component or as an entirely separate activity unconnected to the Programme's management structure and flow of funds.

108. **Water supply** investments would typically consist of: (i) extension of existing distribution networks, (ii) increasing the capacity or rebuilding inadequate storage tanks; (iii) combining additional water sources to meet the present and projected demand; (iv) provision of adequate purification facilities; and (v) a combination of (i)-(iv). The networks would typically consist of buried PolyEthylene (PE) pipes with a chlorination unit. The design standards applied would consider at least 20-years population projection, a demand of 150 l/pers/day<sup>30</sup> and fire-fighting requirements. The water demand from livestock would also be assessed and dedicated watering points constructed as required in case of mixed use of the facility. Household connections with water meters would be carried out by the individual users under the coordination of the local authorities.

109. **Natural gas** investments would comprise of buried PE medium pressure lines and low pressure metal pipe distribution networks on support stands. Pressure control units and odorant dosing tanks would be required in a limited number of locations where the supply would be from the main transmission lines. It is expected that this would apply particularly in Syunik *marz*, where the high pressure mains of the new line from Iran have been laid recently. When technically and economically feasible, the low pressure pipes would be buried at junctions. The household connections would be carried out by ArmRosGasprom following commercial practice for new subscribers.

110. **Stormwater Drainage** concrete lined canals, culverts or gabions/mattresses would be eligible for financing in mountain villages where there is an envisaged risk of destructive flows affecting household's safety and other public utilities (e.g. gas, water, electricity and communication networks).

111. The **RTI sub-component** will be directed exclusively to investments in rural roads and ancillary structures that complement and strengthen Programme investments under Component 1, for example by assuring adequate access to RACP-supported fruits and nuts production areas and facilitating marketing of their produce. Accordingly, the investments would be concentrated in and around the three pilot clusters where the agro-climatic conditions are favourable for the selected fruits/nuts crops supported by the RACP (Vayots Dzor, Tavush and Talin district of Aragatsotn *marzes*).

112. The roads to be upgraded would comprise either inter-community or intra-community roads. Eligible investments would include also road ancillaries such as small bridges and gabions for erosion protection. In specific areas where the development of the fruits and nuts sector has a discernible potential to expand off-farm rural tourism or in the vicinity of cultural heritage sites, the sub-component would also finance the construction of roadside parking areas with market places and sanitary facilities.

113. **Component 3, Programme Management (USD 2.9 million)** is described below in Chapter IV.

## **IV. IMPLEMENTATION AND INSTITUTIONAL ARRANGEMENTS (KSF 4)**

### **A. Institutional Development and Outcomes**

114. The RACP is likely to contribute to institutional development and outcomes in a wide variety of ways, including: (i) further evolution of the Programme Analysis and Administration Unit (PAAU), which will have overall responsibility for implementation of the RACP (see below). The PAAU, originally brought into being as an implementation unit for IFAD-financed projects in Armenia has now become essentially, and indeed in

---

<sup>30</sup> SNIP norm 2.04.02.84.

Armenia uniquely, a multi-faceted agricultural and rural development facility, attracting an increasingly wide range of Governmental, national and international development finance in the context of a burgeoning multi-sectoral engagement; (ii) the proposed Fruit Armenia is a major institutional innovation pioneering a transitional public to private institutional approach to modernising and intensifying smallholder production while protecting and valorising poor farmers' physical and financial resources; and (iii) involvement of the Union of Exporters of Armenia and the Federation of Agricultural Associations on the one hand and contract farmers as FA stockholders on the other is likely to result in new institutional developments along the horticultural (fruits and nuts) value chain at smallholder producer, processor and trader levels, especially with respect to strengthening effective beneficiary participation.

## **B. The Collaborative Framework**

### **The Main Implementing Agencies and Their Roles**

115. A Programme Organigramme is attached to this Main Report as Annex II. In view of the multi-sectoral nature of the RACP, overall responsibility for Programme management and implementation would rest with a Steering Committee under and reporting to the Prime Minister's Office. The membership of the Steering Committee will be determined as part of Programme pre-effectiveness activities, which are detailed in Annex VII (see also below) to this Main Report. Day to day oversight of the management and implementation of the Programme will rest with the existing Programme Analysis and Administration Unit (PAAU), which has been responsible for the day to day management and implementation of all previous IFAD-financed projects and programmes in Armenia. The RACP will finance two new positions in the PAAU, these being a Horticulture Value Chain Development Coordinator and a Horticultural Value Chain Development Officer, in order to address the new management and implementation functions entailed by the Programme's Component 1. A draft Terms of Reference for the Coordinator are provided in Annex VI to this Main Report and also in Appendix 1 to Working Paper 2.

116. The principal functions of the PAAU would be to carry out the overall programming and budgeting of Programme activities, take the lead in Programme implementation in cooperation with Fruit Armenia, infrastructure contractors, beneficiary institutions such as Government laboratories and participating financial institutions, and monitor and document Programme progress. In these respects lead responsibility within the PAAU would rest: (i) with the Value Chain Development Coordinator and Value Chain Development Officer for Component 1 Support to Fruits and Nuts Sector and (ii) with the PAAU's Technical Section (TS) for Component 2, Rural Infrastructure.

117. Specifically, the PAAU will assume the responsibility for generating the Programme's Annual Work Plans and Budgets (AWPBs) to be submitted to the Programme Steering Committee for review and approval and to IFAD for no objection. Likewise the PAAU would take the lead in the procurement of civil works and goods and services.

118. **Annual Work Plans and Budgets.** The PAAU would prepare draft annual work plans and budgets (AWPBs), for each Programme year, to be submitted to the Programme Steering Committee for review and approval. The draft AWPBs would include, among other things, an eighteen-month procurement plan, a detailed description of planned Programme activities during the coming Programme year, and the sources and uses of funds. An indicative initial procurement plan for the first eighteen months of RACP implementation is provided as Table 6 below. The draft AWPBs would be submitted to IFAD for comments and clearance, no later than sixty days before the beginning of the relevant Programme year. If required the PAAU, through the Programme Steering Committee, could propose adjustments in the AWPB during the

relevant Programme year, which would become effective after clearance by IFAD. Provision has been made in the Programme costs for Annual Stakeholder Review and Planning Workshops at which Annual Performance Report findings and management implications would be discussed and fed into the AWPB preparation process.<sup>31</sup>

119. **Progress Reports.** The PAAU would submit both six-monthly and annual progress reports in English to IFAD to provide essential information on the physical and financial progress of Programme activities and regular assessment of Programme impact

---

<sup>31</sup> See Section C on 'Results-based Monitoring and Evaluation' for further details on these workshops and reports.

using a format that would be agreed at the time of Programme start-up. These progress reports would feed into Annual Performance Reports (see below).

120. **Supervision.** The RACP would be directly supervised by IFAD.

121. **Programme Manuals.** The ongoing IFAD-supported RAEDP and FMAP have developed Programme implementation manuals for small works, infrastructure for village improvement and grant co-financing. These manuals will provide the basis for preparation of the RACP Programme Implementation Manual (PIM) covering the Rural Infrastructure component of the RACP, including the co-contribution arrangements, and can be found in Annex I to this Main Report, 'Contents of the Programme Life File.' With regard to Component 1, Support to Fruits and Nuts Sector, the senior management of Fruit Armenia will be responsible for drawing up the technical manuals for the respective operational departments (see Annex VI, Draft Terms of Reference). Final development of all these documents into the fully-fledged RACP Programme Implementation Manual will be one of the Programme's start-up activities (see below).

### **Procurement, Accounts and Audit<sup>32</sup>**

122. **Procurement Systems.** In the course of the final design process for RACP the systems for procurement of works goods and services used by the PAAU were assessed. The systems for public procurement in Armenia were likewise assessed based on work carried out by the World Bank in 2009 and documented extensively in a Country Procurement Assessment Report dated June 2009. For the past decade the PAAU has procured works, goods and services for amounts exceeding USD 50 million. IFAD Procurement Guidelines have guided this procurement with standard bidding documents based on World Bank formats. The biggest procurement items were civil works. Successive supervision missions found that the procurement by PAAU was satisfactory in terms of competitive practices and transparency. PAAU staff has been trained internationally in procurement practices.

123. As noted, in 2009 the World Bank benchmarked the Armenian public procurement system against international standards using "The Methodology for Assessment of National Procurement Systems – based on indicators from OECD-DAC/World Bank Methodology." The review is founded on four pillars: (i) the country's legislative and regulatory framework; (ii) its institutional framework and management capacity; (iii) purchasing operations and market practices; and (iv) integrity and transparency of the public procurement system. The World Bank review concluded that while the legislative framework has evolved towards international standards, substantial improvements are still required for the other three pillars. In general, the legal framework for public procurement in Armenia and its overall principles are in line with the IFAD Guidelines. The Public Procurement Law (PPL) is based on WB guidelines, the UNICITRAL Model Law and the WTO- Government Agreement. However there are still some shortcomings for instance there is a lack of clear provisions in the framework when it comes to the procurement of consultancy services. In addition as noted the actual procurement practices still need quite some improvement. Procurement under the RACP will therefore be carried out in accordance with IFAD Procurement Guidelines with standard bidding documents based on World Bank formats as practised by PAAU for the past years.

124. Accordingly, procurement of goods, works and consulting services financed by the IFAD loan would be subject to the provisions of IFAD's Procurement Guidelines.<sup>33</sup> Civil

---

<sup>32</sup> See Working Paper 4 for more details.

<sup>33</sup> "Procurement Guidelines" of the International Fund for Agricultural Development as adopted in 1982 and amended in 2004.



works would also be subject to the Sample Bidding Documents for procurement of design and civil works (National Competitive Bidding) developed under the on-going FMAP/RAEDP infrastructure investment activities. The PAAU will be expected to include 18-month procurement plans in the Annual Work Plan and Budget submissions.

125. Procurement of goods, vehicles and consulting services shall be bulked together, to the extent possible, into sizeable bid packages in such a manner as to permit the optimal use of competitive bidding and would normally be carried out by the PAAU.

126. **Procurement of Goods and Civil Works.** Contracts for the procurement of goods and civil works estimated to cost more than USD 50 000 equivalent will be awarded on the basis of **National Competitive Bidding (NCB)**. Alternatively, contracts for the procurement of complex or sophisticated goods estimated to cost more than USD 50 000 equivalent for which there is only a limited number of suppliers may be awarded on the basis of **Limited International Bidding (LIB)**.

127. **Procurement of Consulting Services.** Each contract for the procurement of consultant services will be awarded on the basis of the Fund's Procurement Guidelines.

128. The award of any contract for goods, civil works and consultant services estimated to cost USD 50 000 equivalent or more would be subject to prior review by IFAD in accordance with the provisions of IFAD's Procurement Guidelines.

129. All contracts for development of detailed engineering design and bidding documents would be awarded on the basis of evaluating and comparing bids submitted (*Quality and Cost Based Selection method*), in accordance with the procedures described in the FMAP/RAEDP infrastructure investment Operations Manual. Before a final decision on the award is made, a detailed report on the evaluation and comparison of the bids received, together with the recommendation for award and such other information as would be reasonably requested, would be furnished to IFAD for review and written no-objection.

130. All tenders and all contracts awards under the Programme shall be issued by the PAAU.

131. **Prior Review.** The award of any contract for goods estimated to cost USD 100 000 equivalent or more and for works estimated to cost USD 50 000 equivalent or more, would be subject to prior review by IFAD. The award of any contract for consulting services estimated to cost USD 20 000 equivalent or more for individuals and USD 40 000 equivalent or more for firms, would be subject to prior review by IFAD.



**Table 6: Indicative Initial Procurement Plan**  
(amounts include taxes to be covered by Government)

Original: May 2010 (Project Appraisal)  
Revised:  
Period: January 2011 - June 2012 (18 months)

**Abbreviations:** COF - Cofinanciers IC - Individual Consultants LIB - Limited International Bidding  
CW - Civil Works NCB - National Competitive Bidding RC - Recurrent Costs  
SS- Single Source QBS - Quality Based Selection SFB - Selection under Fixed Budget  
LS - Local Shopping QCBS - Quality and Cost Based Selection EV&G - Equipment, Vehicles and Goods  
FA - Fruit Armenia GOAC - Government of Armenia Cash TBD - To be Determined  
N/A - Not Applicable DC - Direct Contracting TASTR&WS - Technical Assistance, Studies, Training and Workshops

Financier-ID Code	Package ID No	Combined Package No	Reference	Description	No of Lots	Loan/Grant Category	Procurement Method	Total Allocated Amount (US\$,000)	Allocated Amount for 18 months (US\$,000)	Prior/Post Review	Proposed No of Packages	Starting year/month	Tender Invitation Month	Bid Opening Date	Contract Signing Date	Delivery/Completion Latest Date	Contract Amount	Supplier/Contractor		
<b>Component A - Support to Fruits and Nuts Sector</b>																				
GOAC	1		A1	Fruit Armenia Land and Buildings		N/A	Government	300.0	300.0	N/A	N/A	2011/01	N/A	N/A	N/A	2011/01				
IFAD Loan	2		A2	Fruit Armenia Buildings renovation and fencing		FA-CW	NCB	136.0	136.0	Prior	1	2011/01	2011/02	2011/02	2011/03	2012/01				
IFAD Loan	3		A3	Fruit Armenia Office equipment and goods		FA-EV&G	LS	75.0	75.0	Post	2	2011/03	2011/04	2011/04	2011/04	2011/05				
IFAD Loan	4		A4	Fruit Armenia ag machinery and equipment		FA-EV&G	NCB	508.0	254.0	Prior	multi	2011/04	2011/02	2011/03	2011/03	2011/05				
IFAD Loan	5		A5	Fruit Armenia nursery, lab equipment, tools and prot. net		FA-EV&G	LS/LIB	258.5	228.0	Post	multi	2011/04	2011/04	2011/05	2011/06	2011/08				
IFAD Loan	6		A6	Fruit Armenia imported plants (seedlings)		FA-EV&G	DC/LIB	1 540.0	770.0	Prior	multi	2011/04	2011/04	2011/05	2011/05	2012/03				
IFAD Loan	7		A7	Fruit Armenia cooling and processing/post harvest units		FA-EV&G	LS/LIB	328.0	-	Prior	multi	2012/09				2013/06				
IFAD Loan	8		A8	Fruit Armenia wooden boxes and trolleys		FA-EV&G	LS	23.0	-	Post	2	2013/01				2013/06				
IFAD Loan	9		A9	Fruit Armenia vehicles		FA-EV&G	NCB	310.0	250.0	Prior	2	2011/02	2011/02	2011/03	2011/04	2011/05				
IFAD Loan	10		A10	Fruit Armenia Orchard Establishment		FA-EV&G	LS	3 976.0	1 136.0	Prior	multi	2011/06				2013/03				
IFAD Grant	11		A11	Fruit Armenia Senior Technical Adviser		FA-TASTR&WS	IC	499.8	142.8	Prior	multi	2011/04				2014/12				
IFAD Loan	12		A12	Fruit Armenia Staff/Fruit Armenia Staff Insurance		FA-RC	IC Staff recruit/SS	1 035.0	269.4	Prior/Post	multi	2011/01				2011/06				
IFAD Loan	13		A13	Fruit Armenia Office Operation and Maintenance		FA-RC	multi	350.0	100.0	Post	multi	2011/06				2014/12				
IFAD Loan	14		A14	Fruit Armenia Orchards Operation and Maintenance		FA-RC	multi	1 536.0	307.2	Post	multi	2012/03				2014/12				
IFAD Loan	15		A15	Fruit Armenia Machinery Operation and Maintenance		FA-RC	multi	1 070.8	164.8	Post	multi	2012/03				2014/12				
IFAD Loan	16		A16	Fruit Armenia Nursery/Tissue Lab Operation and Maintenance		FA-RC	multi	188.3	69.4	Post	multi	2011/09				2014/12				
IFAD Loan	17		A17	Fruit Armenia Pre/cooling Units Operation and Maintenance		FA-RC	multi	10.4	-	Post	multi	2013/03				2014/12				
IFAD Loan	18		A18	Fruit Armenia Fruit/Nut Processing/Sorting and Packing		FA-RC	multi	569.3	-	Post	multi	2012/08				2014/10				
IFAD Loan	19		A19	Fruit Armenia Harvesting Services		FA-RC	multi	7.5	-	Post	multi	2013/07				2014/10				
IFAD Loan	20		A20	Fruit Armenia Transportation Services		FA-RC	LCS	89.1	-	Post	multi	2012/08				2014/10				
IFAD Loan	21		A21	Fruit Armenia Marketing		FA-RC	multi	136.5	45.0	Post	multi	2011/12				2014/12				
IFAD Loan	22		A22	Promotion of Standards and Exports: Equip., Tags, IT System		EV&G	LS/LIB	20.7	20.7	Post	4	2011/09	2011/09	2011/10	2011/10	2011/12				
IFAD Loan	23		A23	Training Elisa test/virus, bacteria, etc		TASTR&WS	IC	20.1	20.1	Post	1	2011/09	2011/09	2011/10	2011/10	2011/12				
IFAD Loan	24		A24	Certification Laboratory, Equipment and Goods		EV&G	NCB	100.0	-	Prior	1	2011/09	2011/09	2011/10	2011/11	2011/12				
IFAD Loan	25		A25	Trade Fairs and Study Tours		TASTR&WS	multi	127.0	-	Prior/Post	multi	2011/04				2014/12				
IFAD Loan	26		A26	FA Business Plan Preparation		TASTR&WS	QBS	50.1	50.1	Prior	1	2011/06	2011/06	2011/07	2011/08	2011/10				
IFAD Loan	27		A27	Strategic Marketing Study		TASTR&WS	QBS	50.3	50.3	Prior	1	2011/10	2011/08	2011/11	2011/12	2012/04				
IFAD Loan	28		A28	Development of TIS and Export Catalogue		TASTR&WS	QCBS	81.4	20.0	Post	multi	2011/03	2011/09	2011/04	2011/04	2012/06				
IFAD Loan	29		A29	Nurseries/Fruit Armenia/Farmers' Technical Training		TASTR&WS	QBS	103.0	83.6	Post	multi	2011/09				2011/12				
<b>Sub-total Component A:</b>								<b>13 499.77</b>	<b>4 492.2</b>											
<b>Component B - Rural Infrastructure</b>																				
COF	30		B1	Public Utilities Investments Civil Works		N/A	N/A	29 664.0	15 020.8	N/A	multi	2011/04				2013/12				
IFAD/COF	31		B2	Rural Transportation Investments Civil Works		CW	NCB	4 194.0	1 212.0	Prior	multi	2011/05				2015/06				
IFAD/COF	32		B3	Civil Works Design and Supervision		CW	QCBS	2 031.5	974.0	Prior/Post	multi	2011/01				2015/12				
<b>Sub-total Component B:</b>								<b>35 889.48</b>	<b>17 206.7</b>											
<b>Component C - Programme Management</b>																				
IFAD Loan	33		C1	Vehicles 4x4		EV&G	NCB	55.4	55.4	Prior	1	2012/01	2012/01	2012/02	2012/03	2012/04				
IFAD Loan	34		C2	Office Equipment		EV&G	LS	31.7	31.7	Post	1	2012/01	2012/01	2012/02	2012/03	2012/04				
IFAD Loan	35		C3	Ad hoc studies and assistance		TASTR&WS	IC	72.9	22.6	Post	multi	2011/02				2015/12				
IFAD Loan	36		C4	Start-up Workshop		TASTR&WS	N/A	10.0	10.0	Post	N/A	2011/01				2011/01				
IFAD Loan	37		C5	Annual Review and Planning Workshop		TASTR&WS	N/A	15.2	3.0	Post	N/A	2011/12				2011/12				
IFAD Loan	38		C6	Baseline Survey		TASTR&WS	QCBS	25.1	25.1	Post	1	2011/02	2011/02	2011/03	2011/04	2011/06				
IFAD Loan	39		C7	Final Impact Survey		TASTR&WS	QCBS	30.9	-	Post	1	2015/09				2016/03				
IFAD/OFID	40		C8	PAAU Staff/PAAU Staff Insurance		RC	IC - Staff recruit/SS	1 507.7	519.7	Prior/Post	multi	2011/01				2016/03				
IFAD/OFID	41		C9	Vehicles & Office Equipment O&M		RC	multi	255.6	75.0	Post	multi	2011/01				2016/03				
IFAD/OFID	42		C10	Office Rent		RC	SFB	266.3	75.0	Prior	1	2011/01				2016/03				
IFAD/OFID	43		C11	International and Local Travel		RC	multi	149.0	45.0	Post	multi	2011/01				2015/06				
IFAD/OFID	44		C12	Audit		TASTR&WS	LCS	106.9	25.0	Audit Provis.	1	2010/12	2010/12	2011/01	2011/02	2011/04				
IFAD/OFID	45		C13	Other Operating Costs, incl. stationery		RC	multi	429.5	144.0	Post	multi	2011/01				2016/03				
<b>Sub-total Component C:</b>								<b>2 956.31</b>	<b>1 031.5</b>											
<b>TOTAL RACP (A+B+C):</b>								<b>52 345.6</b>	<b>22 730.4</b>											

132. **Financial Statements.** As part of the requirement for progress reports noted above, the Borrower, through the PAAU, shall maintain separate accounts and records and thereafter prepare the financial statements of the operations, resources and expenditures related to the Programme required by the General Conditions on Financial Statements in respect to each six-month period during each Fiscal Year, and deliver such financial statements to the Fund within two months after the end of each such period.

133. **Accounts. Special Account.** Responsibility for the Programme's financial management would rest with the PAAU. The Ministry of Finance would open and maintain a Special Account in USD in a commercial bank acceptable to IFAD. The Programme Director would be authorised to operate this Account. The Special Account would receive IFAD loan funds in advance and be utilised to finance the IFAD share of programme expenditures.

134. Once the Special Account has been opened and upon the Borrower's request, the Fund shall make one (or more) withdrawal(s) of up to USD 2.0 million in the aggregate (equivalent to the requirements for the first six months of implementation, the Authorised Allocation) from the Loan Account on behalf of the Borrower and deposit such amount into the Special account. The Fund shall replenish the Special Account from time to time upon request, in accordance with Section 4.08 (Special Account) of the General Conditions, in such minimum amounts as the Fund may specify by notice to the Borrower. Thereafter, payments into the Special Account would be made on the basis of Annual Work Plans and Budgets for the Programme acceptable to IFAD.

135. Likewise, a **Grant Account** will be opened for financing eligible expenditures under the IFAD Grant.

136. **Programme Accounts.** The PAAU will open and operate a number of component-specific programme accounts in AMD.

137. **Flow of Funds.** A chart of the proposed flow of funds arrangements for the Programme is shown in Annex III to this Main Report.

138. **Audit.** The Borrower, through the PAAU, shall appoint independent auditors acceptable to IFAD, under the terms of reference cleared by IFAD, and in line with the IFAD Guidelines for Audits. The costs associated with the independent auditors would be financed from the proceeds of the IFAD Loan under the "Recurrent Costs" category of expenditures. The contract for the audit would be awarded during the first year of programme implementation and thereafter, extended from year to year with the same independent auditor, subject to satisfactory performance and IFAD clearance.

139. The Borrower, through the PAAU, would use the IFAD Guidelines for Project Audits in preparation of audit contracts and Terms of Reference (TORs). These guidelines have already been provided to the PAAU and are already in use for the ongoing IFAD projects. The auditors would give a separate opinion on each programme account with respect to the funding mechanism, the use of programme resources, the adherence to procurement rules, and the accountability of programme participants. Further, a separate opinion by the auditors will be sought for Fruit Armenia at the initial stages of its establishment. It is expected that after full establishment the Board of Directors will request a full independent audit for the company. The auditors would also provide a "Management Letter" addressing the adequacy of the accounting and internal control systems. The Borrower, through the PAAU, would submit the above-mentioned certified items to IFAD not later than six months after the end of the fiscal year to which they relate. The Borrower, through the PAAU, shall submit to the Fund the reply to the management letter of the auditors within one (1) month of receipt thereof.

## Component Management

140. **Implementation of Component 1, Support to Fruits and Nuts Sector.**<sup>34</sup> As noted above, the PAAU's Horticultural Value Chain Development (HVCD) Coordinator and Officer would have oversight of the implementation of Sub-component 1.1 Establishment of Fruit Armenia JSC and Sub-component 1.2 Promotion of Standards and Exports. In this context these two members of the PAAU (together forming the PAAU Value Chain Development Section) would have lead responsibility for: (i) transferring RACP investment funds needed to implement the component, in tranches and in accordance with the Business Plan for Fruit Armenia and the Annual Work Plans and Budgets for the component as a whole; (ii) assuring receipt of the necessary monitoring and evaluation (M&E) data for activities under the component as required by the Programme's overall Management Information and M&E systems with support from the PAAU M&E Officer and PAAU Gender Focal Point/Coordinator; (iii) undertaking the impact assessment of the component's activities, also with support from the PAAU M&E Officer and PAAU Gender Focal Point/Coordinator; and (iv) assisting in the procurement of various types of goods and services needed for component implementation. However, the PAAU would not have any managerial role in Fruit Armenia (FA). FA management would and must be independent, as described in the following paragraphs.

141. Day-to-day management and implementation of Sub-component 1.1 Establishment of Fruit Armenia JSC would rest exclusively with 'Fruit Armenia' (FA). FA would have a senior management team reporting to a Board of Directors. The composition and operation of the Board and the functions of FA management have been described earlier and further details can be found in the draft TORs in Annex VI of this Main Report and Appendix 1 of Working Paper 2.

142. As also noted above, a key initial task for FA management will be drawing up a 3-5 year **business plan** for the company. This plan would, among other things, define in detail the strategies and practical approaches that FA aims to use over its period of coverage to reach its operational and financial targets. The Plan would be designed as a computer model, which could later be used both to monitor the achievement of the set targets and to continuously redefine the future performance prognosis based on the actual results achieved during each quarter in the FA operations.

143. To support the **start-up of the FA operations**, Annex VII of this Main Report provides a draft activity plan for Fruit Armenia JSC for its first operational year. As the company is planned to be registered around January 2011, when also the RACP effectiveness is expected to be reached, this activity plan covers the year 2011 operations, as well as the first months of 2012. Following this activity plan, the first actual planting on smallholders' orchards would take place in March 2012. With this schedule, the plan provides a realistic framework for the start-up of Fruit Armenia JSC and gives enough time during the first year for such operations as the establishment of the FA departments, the initial procurement activities, the orchard designs and the related ordering and supply of the initial planting material, land preparation as well as the critically important training activities required to make the first round of orchard establishment a success.

144. As already described, FA would modernise poor smallholders' orchards on the basis of **contract framing arrangements**. In the course of the anticipated 5-year Programme period from 2011 to 2015, it is anticipated that some 450-500 poor smallholder farmers would be contracted and some 700 hectares of orchards modernised. Contracts would be for a 12-year period. Under FA supervision, orchards would be modernised with new rootstock, husbandry equipment and producer training

---

<sup>34</sup> See Working Paper 2 for details.

provided by FA. FA would also pay both for contracted farm families' labour and hired labour. The main items to be included in the legally binding farming contracts would include: (i) the area of farmer's contracted land (from around 1 ha to around maximum 2 ha); (ii) the period of the contract (in most fruit and nut crops, 12 years); (iii) the obligation of FA to establish a modern fruit and/or nut orchard on the land, including a drip-fertigation system and trellis for training the rows of stone fruits; (iv) FA's obligation to train the farmer in all aspects of orchard management and pre- and post-harvest handling of produce; (v) the detailed way the produce sale incomes are divided between FA and the farmer during each year of the contract; and (vi) the labour arrangements for farmer's own-farm labour and for hired labour needed in conjunction with establishing and managing the orchard, and harvesting the orchard crop, and the respective wages to be paid by FA for the different types of jobs.

145. Modernised orchards are anticipated as reaching commercial levels of production in year 5 following planting of new trees. The contract farming model for FA is based on the assumption that farmers would receive during year five and six 20% of FA's gross sales from the farm. In years 7 to 10, this share would be 25%, further increasing to 30% in years 11 and 12. Thereafter, the contract having ended, all orchard proceeds would revert to the farmers. As noted, contract farmers would also have the opportunities to acquire shares in FA. In addition, they would have the option of re-contracting with FA for services such as husbandry inputs and marketing.<sup>35</sup>

146. As described earlier in the section of this report on targeting, three pilot areas have been pre-identified for FA's activities: Vayots Dzor and Tavush marzes and the Talin district of Aragatsotn marz. As an initial operational step, awareness campaigns would be conducted by FA and farmers' support organisations for the smallholder farmers having land within these locations. During the awareness campaigns the modalities of the contract farming arrangement would be explained to the smallholder farmers. Following these campaigns, farmers would be invited to apply for participation in the planned contract farming operations. At each site of Programme operations there should be several farms adjacent or close to each other enabling the establishment of a cluster of orchards totalling a minimum of 15 ha.

147. The PAAU Gender Focal Point/Coordinator would be responsible for ensuring that: (i) awareness of the Programme and its anticipated benefits was created among women target by the RACP as described above; (ii) that women understood the modalities of the contract farming system under the Programme; (iii) that a needs assessment of potential beneficiary women was carried out to assure the accessibility and relevance of Programme-supported training; and (iv) assure that standards of equal pay and decent work are pursued for women engaged in Programme-supported activities.<sup>36</sup> As noted earlier, some 33% of rural households are women-headed. For this reason women managing the family farm or their own farm would be encouraged to participate in planned contract farming arrangements. All training activities carried out by the FA staff with the RACP support would encourage the participation of both women and men. Contract agreements would have to be signed both by the man and woman, if married.

148. With regard to the management and implementation of Sub-component 1.2, Promotion of Standards and Exports, the main implementation responsibilities for day to day activities would rest with the CSL, ADRP and the Union of Exporters of Armenia, while training of private nurseries and poor smallholder farmers not engaged in FA

---

<sup>35</sup> The financial and economic viability of FA is described in detail both in Working Papers 2 and 5 and its benefits summarised in Chapter V, Section A below.

<sup>36</sup> It has been written into the draft TORs given in Annex VI for the PAAU Value Chain Development Coordinator and FA senior management that one of the responsibilities of these various posts would be assuring that the Programme's gender-related concerns are addressed, gender-related targets are met and gender issues are mainstreamed into Programme operations in collaboration with the PAAU Gender Focal Point/Coordinator.

contract farming, but wishing to modernise up to 2 ha of orchard would be the responsibility of FA. The PAAU in consultation with FA and with support from the Union of Exporters of Armenia and the Federation of Agricultural Associations would encourage 'non-contract' smallholders to develop their orchards in clusters making it possible, following their training, for FA to make forward contract agreements with them. The forward contracts could then be used as security for orchard loans. The PAAU would be responsible for procurement of equipment and services, such as short-term Technical Assistance, for the activities of this sub-component. The PAAU, in particular its M&E Officer, would monitor and assess the impact of all activities under the sub-component.

149. **Implementation of Component 2 Rural Infrastructure**<sup>37</sup> will be led, as noted above, by the existing PAAU Technical Section (TS). The Terms of Reference of members of the current TS, which is appropriate and sufficient for implementation of this component, are provided in Appendix 1 of Working Paper 3.<sup>38</sup>

150. There would be three steps for selection of Rural Infrastructure (RI) investments: (i) pre-qualification; (ii) screening and ranking; and (iii) final selection.

151. With regard to **pre-qualification**, eligible applications under the Public Utilities Investments (PUI) sub-component, i.e. water supply, natural gas and storm-water drainage investments, would need to meet three compulsory criteria: (i) potential beneficiary community located in rural mountain areas with high poverty incidence manifested in terms of lack of assets and income, e.g. landlessness, small holdings, unemployment and negligible off-farm enterprise development; (ii) commitment by the applicants to invest a minimum of 10% of the total cost; and (iii) sustainable procedures for operation and maintenance of the proposed facility, endorsed by the responsible institution.<sup>39</sup> Applications for RTI investments (rural roads and road ancillaries) would have to fulfill the same criteria (ii) and (iii) set for the prequalification of PUI investments, but eligible investments would be focused on the production areas supported under the RACP Support to Fruit and Nuts Sector component. These production areas would be identified on the basis of poverty criteria combined with agro-ecological suitability, as described in Working Paper 2. The required rationale and description of the benefits of the proposed project would include the number of direct and indirect beneficiaries and would specifically address how the proposed investment would support the improved efficiency of the RACP-supported fruits and nuts value chains.

152. The applications for RI investments would be reviewed by the TS Investment Planner and proposals which would not satisfy the basic requirements set above would be rejected.

153. PUI investments **ranking** would be based on the assessment of 5 relevant indicators, these being: (i) number of individuals assisted per USD 1 000 of investment; (ii) equity (monetised) contribution by applicants; (iii) Operations and Maintenance (O&M) capacity and experience; (iv) number of small businesses and economically active people who would directly benefit; and (v) an environmental assessment. With regard to the last indicator, any environmental assessment of an application that indicated potential adverse impacts of the proposed investment but was unaccompanied by

---

<sup>37</sup> See Working Paper 3 for details.

<sup>38</sup> The TS comprises an Investment Planner (Chief of the TS), three Design Engineers (including a Cost Estimator), three Construction Engineers and two Procurement Officers.

<sup>39</sup> In Armenia, IFAD-financed rural infrastructure is operated and maintained by formal institutions, e.g. local government and utility companies rather than by ad hoc organisations of end users.

convincing measures to mitigate/prevent these impacts, would automatically be rejected.

154. RTI investments ranking would be based on the Objective Ranking System (ORS) already used for the RAEDP Commercially Derived Infrastructure (CDI) component. The ORS will consist of the calculation, for pre-qualified project proposals, of a synthetic indicator including: (i) financial viability; (ii) number of beneficiaries per USD 1 000 spent; and (iii) size of equity contribution. The respective weights given to the three factors would be 0.70, 0.15 and 0.15 (i.e. the financial viability would be the main determinant for investment's prioritization). The financial analysis should show a minimum IRR of 10.0%.<sup>40</sup> Proposals showing a lower IRR would be rejected. Details and examples of ORS application are shown in Appendix 3. The PAAU Horticulture Value Chain Development staff would also be involved in the field reviews, to confirm the commercial justification of the proposed investment and to provide the necessary inputs (incremental net benefit streams and ranges for sensitivity analysis) to carry out the financial analysis on RTI investments.

155. In addition, RTI proposals would be assessed for potential environmentally adverse impacts and would be rejected in the absence of identifying effective prevention measures.<sup>41</sup>

156. All pre-qualified RI investment proposals, that are technically feasible, economically viable (i.e. IRR>10% for RTI) and environmentally sound would be ranked and passed to the following step. The main responsibility for carrying out ranking of investments would rest with the TS Investment Planner, who will receive support from other relevant PAAU staff.

157. **Final selection** and endorsement of the proposals that would have passed the pre-qualification and screening and ranking stages would be carried out by the PAAU, by checking for overall compliance with the Annual Work Plan and Budget (AWPB). The implementation of eligible investments in excess of the available annual budget allocated to PUI and RTI would be postponed to the following AWPB. At this stage, the PAAU would consult with relevant institutions to ensure that the selected investments and the phasing are consistent with other development plans in the same area. The PAAU would also ensure that the commitment from the institution responsible for the O&M has been duly formalized.

158. In case of investments valued at more than USD 400 000, a request for no-objection would be sent to the Financier prior to final decision. After receipt of no-objection the implementation of detailed design and civil works would start in accordance with procurement and supervision procedure described in the following paragraphs. If the detailed design envisages a substantial deviation from the initial cost estimates, an ex-post evaluation against the PUI or RTI eligibility criteria and post-design ranking will be carried out by the PAAU prior to tendering.

159. **Procurement** under the component would be on the basis of the provisions set out above and also detailed in Working Papers 3 and 4.

160. The **supervision** of civil works would be carried out by contracting licensed individual daily supervisors or supervising companies under the direct guidance of the PAAU Construction Engineers.<sup>42</sup> The PAAU Construction Engineers would retain the role

---

<sup>40</sup> Programme design estimates the opportunity cost of capital at 10%.

<sup>41</sup> Measures to assure good environmental practices related to *on-farm* activities supported by RACP are provided in Working Paper 2 'Support to Fruits and Nuts Sector'.

<sup>42</sup> TORs for on-site daily supervisors are provided in Appendix 1 of Working Paper 3.



of Project Managers as stated in the General Conditions of Contract and in this capacity would regularly visit sites during implementation of construction works and be responsible for checking the quantities and assuring the quality of implemented works.

161. The TS Engineers and on-site daily supervisor would verify bill of completed quantities, cumulative bill of quantities, and requests for interim payment, as well as completion certificate prepared by Design Companies and Contractors. The TS Engineers would ensure that all engineering design requirements and construction supervision procedures (testing, material certification, laboratory checking etc.) as per the legislation of the Republic of Armenia are fulfilled by Design Companies and Contractors. Representatives of the client group would be members of the acceptance committee issuing the Certificate of Final Completion on the works.

162. Finally, with regard to **operation and maintenance (O&M)** of Programme-supported infrastructure, it has been noted earlier that part of the application process would involve putting forward proposals satisfactory to Programme management and supervision in this respect. Such proposals will always need to detail the persons responsible. In all cases, those satisfactorily identified as responsible will receive, towards the completion of works, relevant and necessary O&M training from the Programme and it will be the responsibility of PAAU/TS staff to follow up regularly for the remainder and after the Programme implementation period to assure that O&M is continuing as required.

163. Given the small scale and rehabilitation nature of the interventions, no significant negative **environmental impacts** are expected from the PUI and RTI investment. As already stated above, applications under both the PUI and RTI sub-components will in any event be subject to environmental assessments and rejected in the cases where their having potential adverse impacts would not be convincingly eliminated by mitigation measures. At the same time, all the environmental review procedures and regulations of the Republic of Armenia would apply to investments carried out under RACP. The main foreseeable environmental concerns would be associated with management and disposal of excavated materials and construction debris. Moreover, in the *Act of the Republic of Armenia on Environmental Impact Assessment* dated November 20, 1995 the activities that must be subjected to environmental impact assessment (EIA) are detailed. The act also stipulates the threshold values that determine the exact EIA procedures to be adhered to on the basis of the planned activity. Submission of required documents and expenses for Environmental Assessment as per the existing legislation would be under the responsibility of the PAAU. The development of additional sources for water supply is subject to the provisions of a *water abstraction right* issued by the Ministry of Nature Protection. The abstraction rates specified in the permit are established through a hydrological/hydro-geological study taking in due consideration the environmental flows or the recharge regime of the aquifers.

164. Finally, the RACP would operate in close continuity with the on-going FMAP. As such, it is expected that RI investments would start immediately after loan effectiveness and the major disbursements under the Component would occur during the first three years of Programme implementation, as all the small scale infrastructure projects supported would be completed within one construction season (about 9 months in the rural areas). Investments in RTI infrastructure would gain momentum following the completion of the process for the identification of the clusters for fruits and nuts development that would be carried out during the first months of implementation. An indicative allocation of 33% of the Component budget for each of the first three years is reflected in the detailed cost tables. Approximately 40-44 rural communities would be targeted every year. This number is manageable considering the PAAU's implementation track record.

**(i) Programme Start-up Activities and Start-up Workshop**

165. Programme **Start-up Activities** will include: (i) drafting of Terms of Reference for key staff including the two new HVCD positions in the PAAU, senior management of FA and Technical Assistance; (ii) recruitment of key staff and TA financed by IFAD; (iii) development of an AWP/B for the Programme's first-year activities; (iv) production/finalisation of a Procurement Plan for the first eighteen months of Programme implementation; (v) an initial deposit in the Programme's Special Account by IFAD of up to USD 2 million; (vi) establishment of the Programme M&E system; (vii) preparation of the FA business plan; (viii) production of FA Technical and Procedural Manuals needed for: (a) FA financial management (by Executive Director with support from the Financial Manager); (b) orchard establishment and management including pre- and post harvest produce handling (by FA Value Chain Manager with support from FA's orchard development/management teams); (c) managing the FA tissue laboratory and the FA nursery (by Senior Technical Advisor with support from tissue-laboratory technicians and the FA nursery agronomist);<sup>43</sup> (d) managing FA's fresh fruit and walnut handling facilities including the protocols for HACCP and relevant ISO standards (by Senior Technical Advisor with support from the Fruit and Nut Processing Manager); and (e) domestic and export marketing (by Senior Technical Advisor with support from the Marketing Manager); (ix) assistance for finalisation of the Programme Implementation Manual (PIM) including manuals for components 1 and 2;<sup>44</sup> (x) carrying out of the Programme baseline survey; and (xi) holding the Programme Start-up Workshop.

166. As already noted, a detailed draft activity plan for the first year of activities under Component 1 Support to Fruits and Nuts Sector is provided as Annex VII to this Main Report.

167. Provision has been made for a Programme **Start-up Workshop**. Among those invited to attend would be staff of the PAAU and FA and representatives of other key potential stakeholders and participants in the RACP including, among others, people from: private nurseries; fruit and nut processors and traders; the CSL and ADRP; FREDA; RFF; other financial institutions who might potentially be sources of finance for RACP stakeholders/beneficiaries; business development services providers; agricultural equipment suppliers and dealers related to orchard development and fruit and nut processing; Union of Exporters of Armenia; the Federation of Agricultural Associations; relevant Government representatives; deliverers of small-scale rural infrastructure (including local government); socio-economic profilers (e.g. NSS); community-based organisations reflecting the Programme's intended target groups; and other projects concerned with rural poverty reduction and development. Key outputs from the workshop would include guidance on: Programme component content and implementing modalities; refinement and finalisation of the Programme Implementation Manual (PIM); and refinement and finalisation of the Programme's targeting criteria and M&E indicators.

**(ii) Technical Partners in Implementation**

168. The technical partners in implementation will be FA, the Union of Exporters of Armenia, CSL and ADRP with respect to Component 1. The Federation of Agricultural Associations and financial institutions for non-contracted farmers and nurseries are expected to be important networking and support partners under Component 1.

---

<sup>43</sup> FA senior management are advised that during Programme start-up they review whether it is better for FA to have an independent tissue culture capability or to merge it with CSL capabilities.

<sup>44</sup> The PIM would combine the FA Technical and Procedural Manuals with an up-dated version of the RAEDP/FMAP Operations Manual for infrastructure. As noted earlier, the current version of this manual can be found in Annex I to this Main Report, 'Contents of the Programme Life File.'

Infrastructure contractors would be the technical partners with respect to Component 2.<sup>45</sup>

### **(iii) Links with Complementary Programmes**

169. No formal links have been established with complementary Programmes, although obviously the involvement of the PAAU will mean continuity and close association with the ongoing IFAD-financed FMAP. Likely candidates for at least informal linkage include: Millennium Challenge Corporation Armenia, in particular its Water to Market Activity; USAID's Financial Deepening Project; the World Bank-financed Rural Enterprise and Small-Scale Commercial Agriculture Development Project; USAID's Local Government Project with reference to solid waste management; the World Bank-financed Rural Enterprise and Small-scale Commercial Agriculture Development Project (RESCAD) with reference to gasification, community-focused economic development and small farmer market access; the World Bank-financed Lifeline Roads Improvement Project and the Asian Development Bank-financed Rural Road Sector Project; and the World Bank project approved in July 2009 for rehabilitation of primary irrigation canals including in Talin district, one of the RACP Component 1 pilot areas. Further details are provided in this Main Report's Annex IV, Logical Framework and Key Files, Table 3: Complementary Donor Initiatives and Partnership Potential.

### **(iv) Integration within the IFAD Country Programme**

170. As noted in previous chapters, the design of the RACP, on the experience gained from previous IFAD-financed projects in Armenia, particularly with respect to rural finance and rural infrastructure, is similar in terms of basic design features and implementation arrangements. This will ensure consistency within the country programme.

## **C. Results-based M&E**

171. The results-based monitoring and evaluation (M&E) system would be based on the Logical Framework provided in Annex IV to this Main Report, 'Logical Framework and Key Files'. The M&E system would comprise performance monitoring and impact evaluation of the RACP. The PAAU Monitoring and Evaluation Officer would have lead responsibility for these exercises. Provision has been made for *ad hoc* national Technical Assistance for Monitoring and Evaluation.<sup>46</sup> Further provision under the Programme Management component has been made for supplementary studies, the findings of which will feed into Programme M&E arrangements over the course of implementation.

172. **Programme internal performance monitoring** will focus on financial and physical outputs and outcomes of Programme activities. Performance indicators, detailed in the Logical Framework in Annex IV will be monitored annually for outcomes and quarterly for outputs and include IFAD Results and Impact Management System (RIMS) 1st and 2nd level indicators. In line with the RIMS, one anchor indicator is identified for assessing the impact of the Programme: household asset ownership.<sup>47</sup> Results of the performance monitoring would be compiled by the PAAU Monitoring and Evaluation Officer into Annual Performance Reports and their implications would be discussed at Annual Stakeholders Review and Planning Workshops.

173. The Logical Framework indicators combined with indicators to be derived from the Programme Start-up Workshop will form the basis of **a Baseline Survey** to be

---

<sup>45</sup> See also Table 5 'Stakeholder Matrix/Programme Actors and Roles' of Annex IV to this Main Report 'Logical Framework and Key Files'.

<sup>46</sup> Working Paper 4, Project Costs and Financing, Appendix 2 Detailed Costs, Table 5A.

<sup>47</sup> A second RIMS indicator, child malnutrition, has not been included since the incidence is less than 5%.

conducted at Programme start-up. The Survey will be designed to capture the present situation in the initial Programme area, as defined earlier, with a particular emphasis on defining the socio-economic status of the primary target group and the structure and performance of the rural economy. Key elements of the Survey are expected to include: (i) socio-economic characteristics of the Programme primary target group; and (ii) status of social and economic infrastructure. It is anticipated that the Survey will combine a formal household sample survey with a more qualitative and in-depth study.

174. Having established benchmark data by carrying out the Baseline Survey, the PAAU Monitoring and Evaluation Officer is expected to institute a system for follow-up data collection combined with Participatory Rural Appraisal and Participatory Impact Monitoring arrangements with both Programme beneficiary and non-beneficiary representative populations in the initial Programme area.

175. **A Mid-Term Review** would be conducted towards the end of the Programme's third year. The Review would cover physical and financial progress as measured against the Annual Work Plan and Budgets (AWPBs), performance and management of contracted implementing partners and an assessment of the efficacy of technical assistance and training programmes. In addition, it is expected that the Review would look at institutional and policy changes arising from Programme activities. The Review findings would inform decision-making on possible adjustments to the content, targeting and financing of the Programme components.

176. In the final year of Programme implementation, as part of the preparation of the IFAD-required **Programme Completion Report/Impact Assessment (PCR/IA)**, M&E data collected over the period of Programme implementation would be fed into an overall assessment of Programme achievements, particularly in terms of changes in the income and livelihood status of beneficiaries targeted by the respective components and in terms of sharing lessons learned and knowledge of development. The PCR/IA process would include stakeholder workshops to provide an opportunity for stakeholders themselves to evaluate Programme performance, to promote accountability, to identify and elaborate upon factors that would increase the likelihood of sustainability and to lay out key successes and shortcomings.

177. If an assessment of country level impact is required then country wide information from a variety of sources will have to be traced once at Programme start and again at Programme closure.

178. Programme external monitoring will comprise: annual IFAD supervision; ad hoc thematic/diagnostic studies; yearly audits; and a Programme Completion Evaluation/Impact Assessment (PCE/IA).

179. All M&E data will be disaggregated by gender.

180. Finally, Table 7 below provides an initial indication of the type of M&E system recommended by IFAD M&E Guidelines, combining performance and participatory monitoring. The participatory rural appraisal (PRA) is intended to provide qualitative information about the needs, issues and perspectives of different stakeholder groups. The PRAs will be important in gathering information about the intended and unintended positive and negative impacts from the Programme that are difficult to capture from quantitative indicators. The Participatory Impact Monitoring systems will be established at the beginning of the Programme with key stakeholders either at the individual or group level. This will involve the stakeholders setting their own performance questions and developing a reporting system that can be monitored. The participatory aspects of the table are provided in italics. The table is developed only for illustrative purposes and the eventual RACP M&E system will be established by the PAAU M&E Officer and the national TA for M&E in consultation and agreement with Programme management and supervision.

**Table 7: Illustrative M&E Arrangements**

Performance Questions	Information Needs and Related Indicators	Baseline Information	Data gathering methods, frequency and responsibility	Planning, Training, Data Management, Expertise, Responsibilities	Analysis, Reporting, Feedback, Change Processes, Responsibilities
How has the Programme improved the livelihoods, assets and incomes of poor small-scale fruit and nut producers and related wage labour?	Household Incomes. Farm Revenue. Assets. Value and volume of production. Average land owned, leased, contracted. Number and type wage employment. Type, volume and value of sales. Access to appropriate affordable rural financial instruments.	RACP Baseline Survey.	Annual review of Programme baselines. Annual Review of PIM.  PAAU, FA and FI records. Sample household surveys (baseline, mid-term review, Programme completion).  <i>Participatory Impact Monitoring (PIM).</i>  <i>Participatory Rural Appraisals (PRAs) at baseline, mid-term review and Programme completion.</i>	PAAU M&E Officer. Other PAAU staff, HVCD personnel and Rural Finance Section (RFS).  PAAU M&E Officer. PAAU HVCD personnel, RFS and TS.  PAAU M&E Officer. National TA in M&E.  PAAU M&E Officer. National TA in M&E.	Household survey information to be compared with feedback from PIM and PRA.  Review of PIM, Programme baseline data, PAAU, FA, FRED, FI and infrastructure contractors records as part of Annual Stakeholder Review and Planning Workshops.  Mid-term and Programme completion reviews with key stakeholders and Programme partners.
How has the Programme contributed to the improvement of rural infrastructure?	No. of infrastructure completed by type. No. of small-scale fruit and nut producers benefiting. No. of poor rural households benefiting. No. of Operation and Maintenance (O&M) organisations/groups and Programme beneficiary representation in them. Changes status of human health and the environment.	Local government records. Ministry of Health records. Ministry of Transport and Communications records. PAAU TS records. State Committee for Water Systems (SCWS), under the Ministry of Territorial Administration records. Ministry of Nature Protection records .	Annual reviews. Infrastructure Contractors records. PAAU TS records. O&M organisations/groups records.  <i>Participatory Impact Monitoring (PIM).</i>  <i>Participatory Rural Appraisals (PRAs) at baseline, mid-term review and Programme completion.</i>	PAAU M&E Officer. PAAU TS.     PAAU M&E Officer. National TA in M&E.  PAAU M&E Officer. National TA in M&E.	To be reviewed as part of Annual Stakeholder and Planning Workshops.  Mid-term and Programme completion reviews with key stakeholders and Programme partners.
Has the Programme contributed to equitable development?	No. of poor women in the Programme. Changes in gender-related poverty profile.	RACP baseline survey.  Identification of the 'very poor' target group at start of Programme.	RACP baseline survey.  <i>Participatory Impact Monitoring (PIM).</i>  <i>Participatory Rural Appraisals (PRAs) at baseline, mid-term review and Programme completion.</i>	PAAU M&E Officer.   PAAU M&E Officer. National TA in M&E.	To be reviewed as part of Annual Stakeholder and Planning Workshops.  Mid-term and Programme completion reviews with key stakeholders and Programme partners.

## V. PROGRAMME BENEFITS, COSTS AND FINANCING

### A. Summary Benefit Analysis<sup>48</sup>

181. The RACP is expected to lead to increased assets and incomes among poor smallholders and small to medium rural entrepreneurs and rural wage labourers. Benefits would derive from: (i) the profitable connection of poor smallholder producers to the fruits and nuts value chains through assurance of uniform quality control in the establishment and husbandry of modern orchards using highly productive varieties for which there is a known and increasing demand in domestic and international markets; (ii) improved rural infrastructure primarily for the benefit of those engaged in agriculture-related activities but also for the economic benefit of Non-Farm Rural Economy enterprises and the social benefit of the rural population as a whole; (iii) reduced transportation costs and post-harvest losses due to rural road rehabilitation; and (iv) incremental tax revenues as a result of increased volume of taxable production.

182. A number of substantial but as yet unquantifiable benefits of the Programme are expected. The foreseen investments in the fruit and nut value chains will lead to an increase in the volume of backwards linkages to the primary target groups of the RACP, i.e. poor smallholders and poor rural wage labour, in terms of increased demand for raw materials and increased and better paid employment opportunities. As demand for the fruit and nuts investments increases, it will stimulate the private sector in developing related services. Improved rural infrastructure is expected to boost economic activities including trade and employment. Programme support to improved infrastructure is also expected to have a beneficial social and economic impact in terms of better access to services and better health. Finally, as the Environmental and Social Review Note (ESRN) for the Programme indicates in greater detail<sup>49</sup>, the activities to be implemented under the RACP will have a positive impact on natural resource management in the Programme area.

183. In addition, the Programme is expected to have substantial benefits in terms of wealth creation and technology transfer. Land values for orchard owners should increase dramatically. On available evidence the price of cereal land is about USD 2 000 per ha, whereas that of mature orchards (10 years plus) is presently selling for more than USD 30 000 – and thus represents a significant incentive for farmers to invest in the land. The nurseries and other serviced providers supported by or working with the Programme are expected to result in a significant upgrade to the fruits and nuts sector country-wide, not just for the smallholders selling to Fruit Armenia. These smallholders, at this stage estimated to amount to about 1 000, would reap the benefits of the more readily available improved root and plant stocks.

184. As part of the **financial analysis** of the Programme, two production models were prepared as building blocks: (i) peach as a proxy representative of stone fruit; and (ii) walnut. These indicative models are based on the assumption that the land used for the orchard is presently producing limited or no output and that none of it is marketed. Further, the models assume that farmers would be provided with a strong vertically-integrated contract farming arrangement ensuring financing and technically sound development of modern orchards resulting in high produce quality and quantities of fruit and nuts demanded by the export market. At full development at Year 6, the models show incremental increases of USD 7 740 for irrigated peach and USD 10 768 for irrigated walnuts with respective cost-benefit ratios of 1.9 and 9.7 and respective Internal Rates of Return (IRRs) of 39% and 48%.

---

<sup>48</sup> See Working Paper 5 'Financial and Economic Analysis' for details.

<sup>49</sup> Please see Annex I 'Contents of the Programme Life File'.

185. Subsequently, an indicative and conservative (as it does not capture a possible expansion of orchard areas) model for the proposed 'Fruit Armenia' (FA) joint stock company was developed, based on the establishment of modern orchards on 300 ha and 400 ha for stone fruits and nuts respectively. The model shows that the anticipated USD 13 million investment would lead, at full development (Y8), to production of 5 400 tons of stone fruits and 2 000 tons of nuts, generating an incremental net income from their sales of AMD 2.1 billion (USD 5.6 million). The IRR on the stream of net benefits before financing is 27%, which is well above the 10% opportunity cost of capital. The IRR after the repayment of government equity financing is 22%. Incremental income accruing to each of the anticipated 465 participating farm families would rise from USD 1 500 (Y5) to USD 4500 (Y11).

186. The impact of participating in FA's contract farming activities on asset creation is even more significant. This can be clearly shown by comparing the prices of the key production component, agricultural land, in different uses and different developmental levels. The current value of land used for irrigated wheat farming in the project area is around USD 2 000. However, the present actual traded value of 1.5 ha of mature orchards varies between USD 25 000 and USD 40 000 (confirmed by recent completed deals on fruit orchards in the Programme area). Using the lower side value of USD 30 000, when upgraded to mature orchards, the land value of the contracted farmers would increase from the current USD 930 000 to USD 13.95 million, or over 10 times. This would make a very significant difference in the asset ownership of individual contract farmers, would also provide the RACP beneficiaries with a very good foundation for the future diversification of their income-earning activities (e.g., obtaining debt financing for other business activities or for the expansion of their orchard-based enterprises).

187. Impact on employment generation is expected to be positive with an additional employment of 52 full-time person's equivalent at the company level as well as a requirement for seasonal employment estimated at about 1 500 person-days per annum.

188. In summary, the main results of the financial analysis for 'Fruit Armenia' are: (i) a significant increase in gross and net returns from the model; (ii) very significant gains in land values for participating farmers; and (iii) a high benefit/cost ratio and IRR demonstrating the attractiveness of the investments. Sensitivity analysis was undertaken to assess the impact on the financial returns of changes, in: (i) output prices; (ii) expected yields; (iii) operating costs; and (iv) investment costs. It showed that the model is not sensitive to fluctuations in the parameters; however it is more sensitive to changes in yield and price assumptions and production costs than to variations in investment.

189. The detailed production models for peach and walnut can be found in Working Paper 5 Appendix 2 and the 'Fruit Armenia' model in Working Paper 5 Appendix 3. Summary tables arising from the financial analysis of Fruit Armenia are presented below in Tables 8 and 9.

**REPUBLIC OF ARMENIA  
RURAL ASSETS CREATION PROGRAMME (RACP)  
PROGRAMME FINAL DESIGN REPORT  
MAIN REPORT**

**Table 8: Production Financial Budgets Summary**

Item	Stone Fruit	Walnuts
Gross Output, AMD		
With Programme	6 144 600	4 620 000
Total Inputs, AMD		
With Programme	3 164 638	474 437
Gross Margin, AMD		
With Programme	2 979 962	4 145 563
Gross Margin, USD		
With Programme	7 740	10 768
With Project Benefit/Costs Ratio	1.9	9.7
IRR, %	39%	48%

**Table 9: Summary of FA Model**

Item	Unit	Value
Total Investments	USD'000	13 000
Operational Costs at full development	USD'000	5 433
Cost benefit ratio		2.12
Annual Net Benefits at full development	USD'000	5 577
IRR before financing	%	27%
IRR after financing charges	%	22%
NPV before financing	USD'000	18 071
NPV after financing charges	USD'000	12 032

190. Table 10 below provides a summary of projected benefits and beneficiary numbers as a result of FA activities at Programme maturity.

**Table 10: Summary of Incremental Annual Earnings and Beneficiaries at Programme Maturity**

Type of Earnings and Beneficiaries	No.	Full Time Equivalent Employees		Net Income Before Tax (AMD Million)	Net Income Before Tax (USD)	Total Beneficiaries Including Household Members
		No.	Wages (AMD Million)			
Contract Farmers' Share of FA Sales	465			1 222	3 174 000	1 680
Payments for Labour to Contract Farmers		80	44	44	114 285	
Fruit Armenia JSC				847	5 326 000	
Fruit Armenia Staff		52	187	187	485 714	208
Trained Nurseries Benefiting from Being Upgraded	9			1 728	4 489 331	
Staff in Nurseries		45	104	104	270 129	
Trained Farmers Benefiting Economically	900			435	1 129 870	3 600
Household Orchard Farmers Benefiting from New Planting Material	7 250			885	2 298 701	29 000
<b>Total</b>	<b>8 624</b>	<b>177</b>	<b>335</b>	<b>5 452</b>	<b>17 880 030</b>	<b>34 668</b>



191. As described earlier, the Programme would support productive and small-scale infrastructure including rural roads, bridges, community water supply, community natural gas supply, and any other productive infrastructure, which would be for the benefit of all the rural population. The selection of rural infrastructure interventions would be based on a set of important criteria, including linkages with poverty reduction, technical feasibility, assurance of the required operation and maintenance (O&M), financial and economic viability, and environmental soundness. Three indicative models were prepared for small-scale infrastructure investments to illustrate the potential returns: (i) village gas supply development; (ii) rehabilitation of a drinking water supply scheme; and (iii) rehabilitation of a village road. These three infrastructure models are presented in Working Paper 5 Appendix 4.

192. The village gas development model illustrates the possible incremental benefits that would derive from the construction of a gas pipeline of about 10 km for a community comprising 970 households. Under the present conditions, an average household annually uses about 8 m<sup>3</sup> of timber, 1 300 kWh of electricity and 60 kg of liquid gas. The anticipated main benefit would occur from a reduction in heating expenditures from AMD 136 039 (USD 350) to AMD 119 015 (USD 310) per household annually due to the availability of less expensive natural gas. The investment costs estimation is about AMD 96.3 million (USD 250 000). Annual operation and maintenance cost will be covered by ArmRosGaz Company and included in its charges for gas supply to the clients. The model records a Net Present Value (NPV) of AMD 27.67 million (USD 71 888) over a twenty-year period and an IRR of 14.0% which is above the opportunity cost (10%). The payback period for this investment is seven years. The switching values shows that this investment would be commercially viable even if benefits decreased by 24% and investment costs increased by 32%. However, the willingness of the households actually to connect to the gas pipeline (this is not covered by the investment), would need to be taken into consideration before any investment decision is made.<sup>50</sup>

193. The drinking water model analyses the benefits of rehabilitation of a main drinking water pipeline, internal network and a small pump station benefiting 200 households. The main benefit would arise from reduced water losses due to leakages (about 32 200 m<sup>3</sup> annually) in the old systems as well as timesaving of one hour per day per household. In addition to the time and water saved, the project would improve the health status of the population in the area by reducing risks of drinking unclean water. However, even though this benefit is difficult to estimate, the model nevertheless gives an IRR of 18% and NPV of AMD 38.1 million (USD 98 918) and the investment is classified as economically viable.

194. The third infrastructure model posits the rehabilitation of a village road of about 7 km which can connect three villages to a main road and their main agricultural sites. The model assumes 1 400 ha arable land, comprising 200 ha and 100 ha respectively of Programme-supported peach and walnut orchards and 1 100 ha of cereals. The total population is 2 250 people or about 700 households. As a result of improved access, it is assumed that the transportation unit cost per ton-km would be decreased by about 10%, while the volume of tradable agricultural products would increase. The model provides an IRR of 14.0% over a twenty-year period, which is within the standard range for such investments, and a NPV of AMD 60.3 million (USD 156 713). The switching values show that the investment would be commercially viable even if benefits decreased by 17% and investment costs increased by 23%.

---

<sup>50</sup> See also Working Paper 3, Appendix 4.

**REPUBLIC OF ARMENIA  
RURAL ASSETS CREATION PROGRAMME (RACP)  
PROGRAMME FINAL DESIGN REPORT  
MAIN REPORT**

195. Despite the estimated positive IRR and NPV values for the rural infrastructure, it would be important to carry out thorough feasibility studies for any infrastructure investment to be financed under the Programme.

196. The summary of the financial results and switching values for the infrastructure models are presented in Table 11 below.

**Table 11: Infrastructure Models - Financial Results and Switching Values**

Infrastructure Models	NPV - after financing (USD)	IRR - after financing (%)	Switching Values % <sup>a/</sup>			
			Incremental Revenues (Inflows)	Incremental Operational Costs	Incremental Investment Costs	Incremental Outflows
Gasification	71 888	14.4%	-24%	NA	-24%	NA
Drinking Water Supply	98 918	17.6%	-33%	394%	49%	44%
Road Rehabilitation	156 713	13.8%	-17%	183%	23%	20%
<i>Average</i>	<b>109 173</b>	<b>15.3%</b>	<b>-24%</b>	<b>289%</b>	<b>16%</b>	<b>32%</b>

a/ The switching values show percentage by which the costs would need to rise or benefits decrease before the NPV reached zero, associated with each of the values (at 10% opportunity costs).

197. An **economic analysis**<sup>51</sup> was also undertaken to calculate the overall benefits of the Programme using the illustrative models described above based on economic prices. The period of analysis is 20 years to account for the phasing and gestation period of the proposed interventions. In calculating the overall benefits the following was taken into account. With regard to Component 1, Support to Fruits and Nuts Sector: (i) based on the FA model, the component would directly reach 450 (average) poor smallholder households through its vertically integrated establishment of modern orchards and indirectly a further 1 000 poor smallholder households through its training programmes for orchard modernisation at the rate of 200 households per annum over five years of Programme implementation; (ii) it was assumed that only 80% of the investments would achieve the estimated returns in PY 1-7, thereafter benefits were assumed at 100% to take into account participation by other farmers; and (iii) no financing flows have been undertaken in the calculations as they represent transfer payments (equity financing, grants and taxes). With respect to Component 2, Rural Infrastructure: (i) it was estimated that the investments would directly reach about 61 600 households or 200 000 beneficiaries; (ii) again, it was assumed that only 80% of the investments would achieve the estimated returns; (iii) a weighted average for the incremental annual net benefits per USD 1 of investments equal to just more than USD 0.20 was applied; and (iv), also as for Component 1, no financing flows were undertaken in the calculations as they represent transfer payments (equity financing, grants and taxes).

198. In determining the cost stream, incremental economic costs have been calculated by the removal of price contingencies and taxes/duties. Recurrent costs and replacement of goods and equipment were assumed for PY6 and onwards (in the FA model in economic terms). The total economic cost of the Programme amounts to about USD 32.3 million. The costs of the FA operation were removed as the former are already counted in the calculation of the net benefit stream and the latter are not considered due to uncertainty of benefits because of the demand-driven nature of the investments.

199. On the basis of the above considerations, the base case economic internal rate of return (EIRR) is estimated at 15%. The base case NPV of the Programme's net benefit stream, discounted at 10%, is USD 16.2 million. A summary of the economic analysis is presented in Working Paper 5, Table 5. A sensitivity analysis summarised in Table 4 of Working Paper 5 shows that a fall in total Programme benefits by 20% or an increase in

<sup>51</sup> For details of the economic analysis please refer to Working Paper 5 Chapter IV and Appendix 5.

**REPUBLIC OF ARMENIA: RURAL ASSETS CREATION PROGRAMME (RACP)  
PROGRAMME FINAL DESIGN REPORT  
MAIN REPORT**

total Programme costs by the same proportion would reduce the base EIRR to about 13%. The switching values show that the Programme would be economically viable even if benefits decreased by 37% and investment costs increased by 58%. A one-year delay in Programme benefits reduces the EIRR to 13%. With a two-year delay in Programme benefits, the EIRR falls to just below 12%.

### B. Summary Cost Table<sup>52</sup>

200. Programme costs by component are shown in Table 12 below. They have been estimated on the basis of November 2009 prices. The total investment and incremental recurrent Programme costs, including price contingencies, are estimated at USD 52.36 million (AMD 20.29 billion). Physical contingencies and price contingencies make up less than 1% of total Programme costs due to the fact that investments associated with the horticulture investments and small-scale infrastructure together make up more than 90% of the total Programme costs and these costs can be judged with a high degree of certainty.<sup>53</sup> The foreign exchange component is estimated at USD 6.2 million or about 12% of the total Programme costs. Taxes make up approximately USD 7.72 million or about 15% of the total. Programme management is estimated at USD 2.86 million or 5.0% of total Programme costs.

**Table 12: Programme Costs by Component**

Components	AMD million			USD '000			% of Exchange	% of Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
<b>A. Support to Fruits and Nuts Sector</b>								
1. Establishment of Fruit Armenia	2 823.69	2 160.99	4 984.69	7 334.26	5 612.97	12 947.24	43	25
2. Promotion of Standards and Export	110.33	100.61	210.94	286.58	261.32	547.90	48	1
<i>Subtotal Support to Fruits and Nuts Sector</i>	<i>2 934.03</i>	<i>2 261.60</i>	<i>5 195.63</i>	<i>7 620.85</i>	<i>5 874.29</i>	<i>13 495.14</i>		<i>26</i>
<b>B. Rural Infrastructure</b>								
1. Public Utilities Investments	12 105.88	-	12 105.88	31 443.84	-	31 443.84	-	60
2. Rural Transportation Investments	1 711.57	-	1 711.57	4 445.64	-	4 445.64	-	9
<i>Subtotal Rural Infrastructure</i>	<i>13 817.45</i>	<i>-</i>	<i>13 817.45</i>	<i>35 889.48</i>	<i>-</i>	<i>35 889.48</i>		<i>69</i>
C. Programme Management	999.05	102.02	1 101.07	2 594.92	264.99	2 859.92	9	5
<b>Total BASELINE COSTS</b>	<b>17 750.52</b>	<b>2 363.62</b>	<b>20 114.14</b>	<b>46 105.25</b>	<b>6 139.28</b>	<b>52 244.53</b>	<b>12</b>	<b>100</b>
Physical Contingencies	18.16	4.28	22.45	47.17	11.13	58.30	19	-
Price Contingencies	135.35	16.67	152.02	38.09	4.65	42.73	11	-
<b>Total PROGRAMME COSTS</b>	<b>17 904.03</b>	<b>2 384.58</b>	<b>20 288.61</b>	<b>46 190.51</b>	<b>6 155.05</b>	<b>52 345.56</b>	<b>12</b>	<b>100</b>

### C. Programme Financing: IFAD Financing, Co-financing, Government, Partners and Beneficiary Financing

201. IFAD financing of the RACP would comprise a loan of USD 13.48 million and a grant of USD 500 000, which taken together amount to 27% of Programme costs. The IFAD monies would be used to finance about 83% of the Support to the Fruits and Nuts Sector component (with the IFAD grant being used exclusively to finance Technical Assistance to Fruit Armenia), 4% of the Rural Infrastructure component (specifically and

<sup>52</sup> A Summary of Main Cost Tables is given in Annex V to this Main Report. See also Working Paper 4 Programme Costs and Financing for further details, including full sets of Summary and Detailed Cost Tables given respectively as Appendices 1 and 2 to that working paper.

<sup>53</sup> Physical contingencies have only been applied on the items for which the required amounts could not be reasonably estimated, and have not been applied to the funds earmarked for the "Fruit Armenia" establishment and operation as well as for capital investments or to civil works as they follow a demand-driven delivery scheme.

**REPUBLIC OF ARMENIA  
RURAL ASSETS CREATION PROGRAMME (RACP)  
PROGRAMME FINAL DESIGN REPORT  
MAIN REPORT**

exclusively the RTI sub-component), and 48% of the Programme Management. A loan from the Organisation of Petroleum Exporting Countries Fund for International Development (OFID) of about USD 20.0 million (38% of the total Programme costs) would be used to co-finance the Rural Infrastructure component (specifically and exclusively the PUI sub-component) and 41% of the Programme Management. The IFAD and OFID funds would be made available to the Programme on the basis of parallel financing. The Government contribution is estimated at USD 11.02 million (21%) and includes contributions from its budget and from foregone taxes and duties, primarily for the Rural Infrastructure component (see below). USAID would provide parallel financing of about USD 2.00 million for the PUI sub-component. A further USD 2.27 million will be sought during implementation from other partners.<sup>54</sup> Approximately USD 3.06 million (6%) would be provided by the beneficiaries as contributions (cash or in-kind) to small-scale infrastructure investments. Approximately USD 3.06 million (6.0%) would be provided by the beneficiaries as cash or in kind contributions to the financing of infrastructure investments.

202. The Government contribution would be in the form of foregone taxes and duties on all Programme inputs that involve funding from the IFAD Loan or any other external source of funding associated with the IFAD loan. In addition, the Government is expected to contribute from its budget about USD 3.3 million for infrastructure investments and finance land and buildings for the Support to Fruits and Nuts Sector component estimated at approximately USD 0.3 million. The estimate of taxes and duties was based on the rates in effect prevailing at the time of Programme design. In conformity with the principle that no taxes or duties would be financed out of the proceeds of the IFAD Loan, any future changes in the rates and/or structures of taxes and duties would have to apply to the Programme.

203. Tables 13 and 14 below provide summaries by Programme components and expenditure accounts of the proposed financing arrangements.

**Table 13: Financing Plan by Components (USD thousand)**

Component	IFAD	IFAD Grant	GOA Taxes	GOA Cash	OFID	Beneficiaries	USAID	TBD	Total
<b>A. Support to Fruits and Nuts Sector</b>									
1. Establishment of Fruit Armenia	10 198.3	499.8	1 949.1	300.0	-	-	-	-	12 947.2
2. Promotion of Standards and Export	532.4	-	20.2	-	-	-	-	-	552.5
<i>Subtotal Support to Fruits and Nuts Sector</i>	10 730.7	499.8	1 969.3	300.0	-	-	-	-	13 499.8
<b>B. Rural Infrastructure</b>									
1. Public Utilities Investments	-	-	4 760.1	2 600.1	18 803.7	2 679.5	2 000.9	-	599.5
2. Rural Transportation Investments	1 332.3	-	667.1	399.6	-	379.2	-	-	1 667.4
<i>Subtotal Rural Infrastructure</i>	1 332.3	-	5 427.2	2 999.7	18 803.7	3 058.7	2 000.9	2 270.0	35 889.5
<b>C. Programme Management</b>	1 425.6	-	326.6	-	1 204.1	-	-	-	2 956.3
<b>Total PROGRAMME COSTS</b>	13 488.6	499.8	7 723.1	3 299.7	20 007.9	3 058.7	2 000.9	2 270.0	52 345.6

<sup>54</sup> At present IFAD's Performance-Based Allocation System (PBAS) provides for financing to Armenia of just under USD 14 million. Efforts will be made during implementation to raise a further USD 2.27 million from IFAD resources (as updates are made to the PBAS in 2011 and 2012) or elsewhere.

**REPUBLIC OF ARMENIA: RURAL ASSETS CREATION PROGRAMME (RACP)  
PROGRAMME FINAL DESIGN REPORT  
MAIN REPORT**

**Table 14: Financing Plan by Expenditure Accounts (USD thousand)**

	IFAD		Government		OFID	Beneficiaries	USAID	To be determined	Total
	Loan	Grant	Taxes	Cash					
<b>I. Investment Costs</b>									
<b>A. Civil Works</b>									
Civil Works	1 341.0	-	5 111.2	3 299.7	17 484.3	3 058.7	1 874.9	2 124.2	34 294.0
Design and Supervision	104.7	-	338.6	-	1 319.4	-	126.0	142.7	2 031.5
<b>Subtotal Civil Works</b>	<b>1 445.6</b>	<b>-</b>	<b>5 449.8</b>	<b>3 299.7</b>	<b>18 803.7</b>	<b>3 058.7</b>	<b>2 000.9</b>	<b>2 266.9</b>	<b>36 325.5</b>
<b>B. Equipment and goods</b>	87.1	-	21.8	-	-	-	-	-	108.8
<b>C. Agric. Equipment and Goods</b>	5 626.5	-	1 125.6	-	-	-	-	-	6 752.0
<b>D. Vehicles</b>	276.8	-	88.6	-	-	-	-	-	365.4
<b>E. Technical Assistance</b>									
International Technical Assistance	50.1	499.8	-	-	-	-	-	-	549.9
National Technical Assistance	260.5	-	-	-	-	-	-	-	260.5
<b>Subtotal Technical Assistance</b>	<b>310.7</b>	<b>499.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>810.5</b>
<b>F. Training</b>	275.3	-	0.0	-	-	-	-	-	275.3
<b>Total Investment Costs</b>	<b>8 022.0</b>	<b>499.8</b>	<b>6 685.8</b>	<b>3 299.7</b>	<b>18 803.7</b>	<b>3 058.7</b>	<b>2 000.9</b>	<b>2 266.9</b>	<b>44 637.6</b>
<b>II. Recurrent Costs</b>									
<b>A. Salaries</b>	701.1	-	105.5	-	701.1	-	-	-	1 507.7
<b>B. Operation and Maintenance</b>	106.5	-	42.6	-	106.5	-	-	-	255.6
<b>C. Other Operating Costs</b>	396.6	-	158.7	-	396.6	-	-	-	951.8
<b>D. FA Operation and Maintenance</b>	4 262.5	-	730.5	-	-	-	-	-	4 992.9
<b>Total Recurrent Costs</b>	<b>5 466.6</b>	<b>-</b>	<b>1 037.3</b>	<b>-</b>	<b>1 204.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>7 708.0</b>
<b>Total PROGRAMME COSTS</b>	<b>13 488.6</b>	<b>499.8</b>	<b>7 723.1</b>	<b>3 299.7</b>	<b>20 007.9</b>	<b>3 058.7</b>	<b>2 000.9</b>	<b>2 266.9</b>	<b>52 345.6</b>

## VI. PROGRAMME RISKS AND SUSTAINABILITY (KSF 5)

### A. Risk Analysis

204. The main risks anticipated with respect to Component 1 Support to Fruits and Nuts Sector are, in descending order of priority: (a) the standard of FA services; (b) lack of contract discipline; (c) border crossings; (d) weather; and (e) reduced produce prices.

205. RACP design measures to assure the necessary high standard of FA services include: (i) a majority private sector membership in the FA Board from the outset; (ii) provision for the recruitment of high calibre staff to senior FA positions; (iii) substantial investment in long-term international Technical Assistance; (iv) provision for short-term local and international technical support; (v) a range of sectoral support investments to complement FA investments; and (vi) provision in RACP budgets to allow some of the Programme support to be prolonged to PY5 and a provisional PY6 if need be.

206. With regard to potential lack of contract discipline, FA would aim at carefully worded sanction clauses in the farming contracts that could be legally enforced with a reasonable cost to FA. Second, through campaigns and information sharing, FA and farmers' support institutions would aim to make it very clear to participating farmers that any breach of the contract terms would lead to an immediate loss of the financial benefits that the farmers could expect from these contract-based arrangements. As these benefits are high, this should act as a major incentive for farmers for adhering to all the terms of the farming contracts.

207. With regard to border crossings, it is anticipated that ongoing contacts between Armenia, Georgia and Turkey will provide export routes to Russia, other CIS members and eventually the EU.

208. The risk from weather has been carefully assessed and would be mitigated by Programme commitment to select and introduce late flowering rootstock and hail nets.

209. With regard to mitigating the risk that a drop in demand for horticultural produce with a subsequent reduction in prices could have an adverse effect on the profitability and sustainability of the proposed interventions, Programme design has chosen value chains which show a steady growth in international trading volumes and increases in the

export prices of the produce. In addition, under sub-component 1.2, major efforts are made to intensify the sectoral promotion of fruits and nuts exports from Armenia.

210. The risks anticipated with respect to Component 2 Rural Infrastructure are: (a) political interference perhaps seeking to undermine decision-making procedures established for the selection/location of PUI investments; (b) the available funds for the RTI component could be viewed as a supplement to central and local budgets for road maintenance; and (c) a sudden increase of the gas consumer price which would reduce the estimated economic return for rural gas projects. The detailed selection criteria described above for financing eligibility under the PUI and RTI sub-components, combined with procurement and financier prior review and no objection requirements and RACP supervision arrangements are designed to off-set risks (a) and (b). Meanwhile, with respect to mitigating risk (c), GoA has recognized the strategic importance of natural gas and has taken steps to diversify its bulk suppliers and has carried out negotiations on the price of future supplies with Russia.

### **B. Exit Strategy and Post-Programme Sustainability**

211. Factors in the Programme design that would contribute to an effective exit and post-Programme sustainability include: a focus on market-responsive agriculture, which if implemented properly should result in sustainable investments; beneficiary co-financing requirements which should assure commitment and also care with respect to achieving sustainable returns on investments, since such an arrangement provides in-built incentives; emphasis, as manifested in Programme-supported types of investment and associated training on positioning and enabling beneficiaries to profitably engage with existing and emergent markets and further development assistance in the context of a market economy; and fourthly, as mentioned earlier, provision for the gradual and complete privatisation of FA as a long-term viable enterprise.

### **C. Environmental Classification<sup>55</sup>**

212. In line with IFAD Guidelines on Environmental Assessment and following the initial IFAD Design Mission's field work and report preparation, the Rural Assets Creation Programme has been classified as Category B. Few negative environmental impacts are expected to result from the interventions supported by the Programme. Rather, many of the anticipated developments associated with the modernisation of fruits and nuts production and processing, diversification of the rural economy and improvements to rural infrastructure are reliant upon and would contribute positively towards a number of environmental services, including: agro-chemical regulation in conformity with international standards for food safety; improved efficiency and sustainability of water usage through dissemination of drip-fertigation and efficient domestic water management systems; and protection of forest resources through gasification as a cost-effective replacement for firewood. Notwithstanding all this, the RACP would still be responsible for ensuring that the requirements of the environmental legislation of Armenia and IFAD Guidelines on Environmental Assessment are adhered to in order to avoid negative impacts, and, when and if necessary, introduce appropriate mitigation measures.

---

<sup>55</sup> Please also see the Environmental and Social Research Note (ESRN) provided in Annex I to this Main Report, 'Contents of the Programme Life File'.

## VII. INNOVATIVE FEATURES, LEARNING AND KNOWLEDGE MANAGEMENT (KSF 6)

### A. Innovative Features

213. The Programme's major innovation is the creation of Fruit Armenia as an institutional modality for achieving pro-poor value chain development in the economic interests of smallholder agriculture. Aspects of the innovation include: a focused, vertically integrated and enterprise-led approach; application of a company model to deliver financing for a sectoral modernisation programme, for which finance from traditional sources is not available; application of a contract farming model to carry out a significant technological transfer on very small-scale farms in mountainous areas; using a commercial, enterprise-based model to modernise the planting material of the whole fruits and nuts sector to meet the demands of the international export markets; and support to the introduction of international production standards and food safety and export certification to all horticultural exports, thus improving Armenia's competitiveness.

### B. Programme Knowledge Products and Learning Processes

214. Knowledge products and learning processes of the RACP would stem from its provisions for Annual Stakeholder Review and Planning Workshops, sector studies, reporting, monitoring and evaluation, and its field experiences. Multi-media publication of this experience gained would be a substantial Programme contribution to regional and national knowledge. At the same time, a very specific and major knowledge product of the Programme will be the proposed 'National Manual for Export of Fresh Produce', as a web-based 'living document'.

### C. Regional Knowledge Networking

215. IFAD has acquired considerable experience with poverty-reducing agricultural Programmes in Armenia, particularly, with various forms of co-financing to support more market-oriented agriculture like that proposed by the RACP. This accumulated experience, including that gained under the RAEDP and the FMAP, as well as the proposed RACP will be documented, compared and shared with other countries in the region. IFAD will finance this initiative.

## VIII. NEXT STEPS

216. The timetable anticipated for further RACP processing is as follows:

<b>Milestones</b>	<b>Dates for 2010</b>
Completion of the RACP Final Design Report	End April
Completion of IFAD Quality Assurance Review (QA)	July
Loan Negotiations	August
Presentation to IFAD's Executive Board	September





**REPUBLIC OF ARMENIA**  
**RURAL ASSETS CREATION PROGRAMME (RACP)**

**Programme Final Design Report**

**Main Report**

**Annexes**



**REPUBLIC OF ARMENIA**  
**RURAL ASSETS CREATION PROGRAMME (RACP)**  
**PROGRAMME FINAL DESIGN REPORT**

**ANNEXES**

**Table of Contents**

	<b>Page</b>
Annex I: Contents of the Programme Life File	1
Annex II: Programme Organigramme	3
Annex III: Programme Flow of Funds	5
Annex IV: Logical Framework and Key Files	7
Annex V: Summary of Main Cost Tables	15
Annex VI: Terms of Reference for Key Staff	23
Annex VII: Draft Activity Plan for First Year	37



## **PROGRAMME FINAL DESIGN REPORT**

### **ANNEX I: Contents of the Programme Life File**

1. **Working Papers**

Working Paper 1: Poverty and Targeting  
Working Paper 2: Support to Fruits and Nuts Sector  
Working Paper 3: Rural Infrastructure  
Working Paper 4: Programme Costs and Financing  
Working Paper 5: Financial and Economic Analysis

2. **Environmental and Social Review Note**

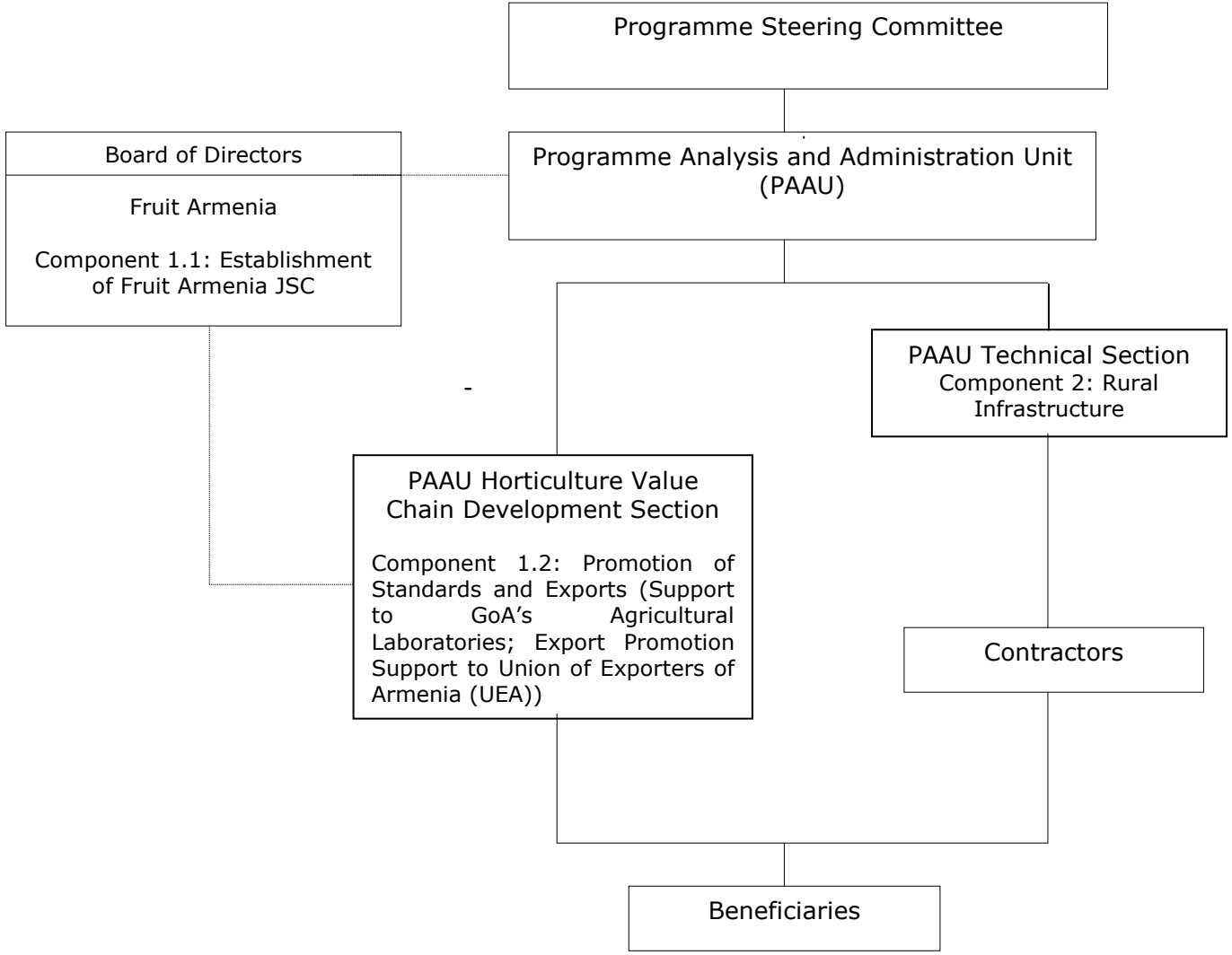
3. **Design Mission Aide Memoire and List of Persons Met**

4. **Guidelines and Manuals**

RAEDP/FMAP Operations Manual for Small-scale Infrastructure



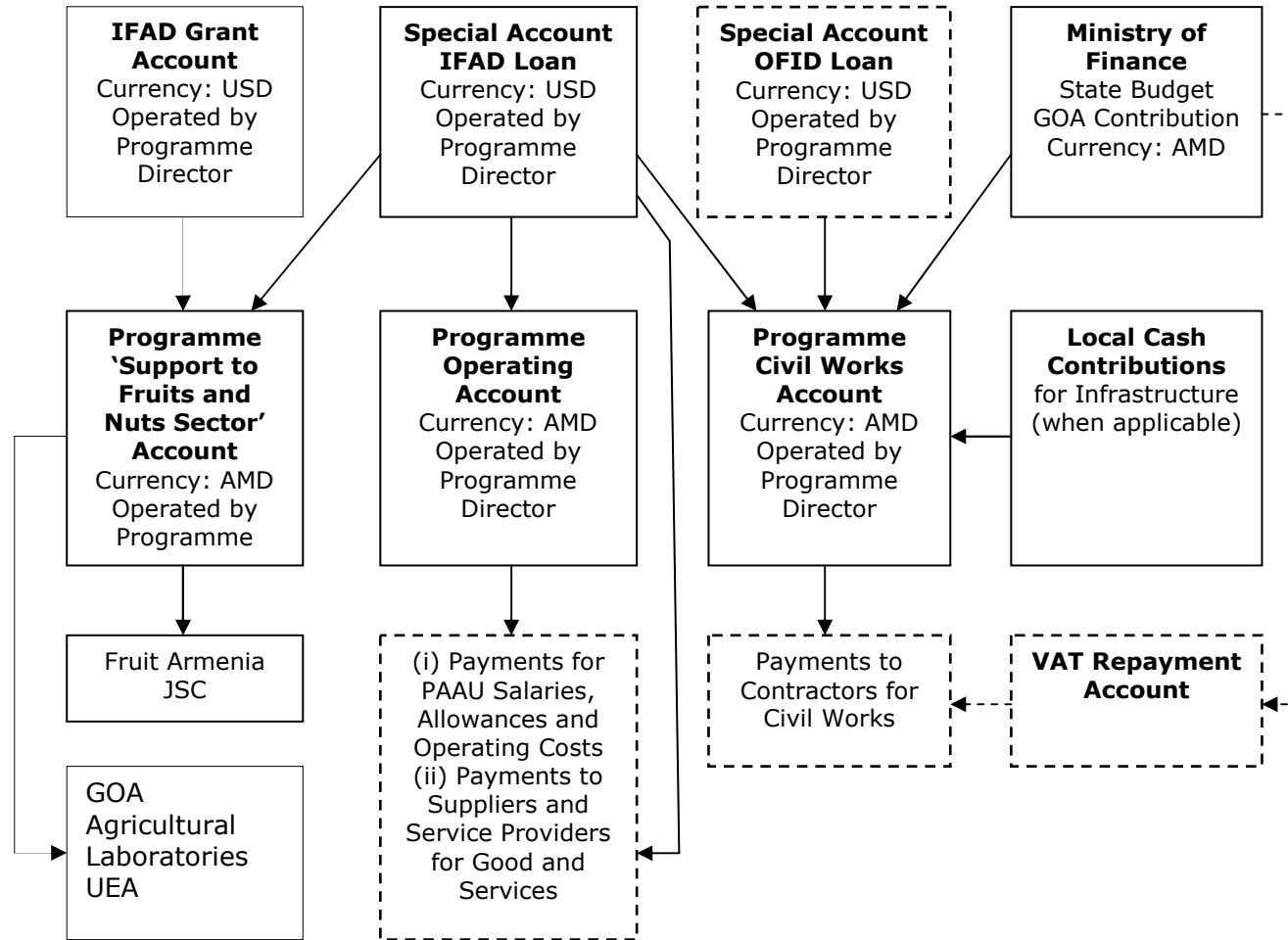
**ANNEX II: Programme Organigramme**







### ANNEX III: Programme Flow of Funds





## ANNEX IV: Logical Framework and Key Files

<b>Narrative Summary</b>	<b>Verifiable Indicators</b>	<b>Means of Verification</b>	<b>Assumptions/Risks</b>
<b>Goal</b> Rural poverty in Armenia reduced.	<ul style="list-style-type: none"> <li>• 10% reduction in the number of rural people living on &lt; USD 4.30/day.</li> <li>• At least 20% of households involved in RACP activities increase household asset ownership.</li> </ul>	National Statistics (NSS Poverty Profiles). Household surveys (e.g., ILCS, ADHS, RIMS). Impact assessment studies.	Macro-economic environment and related policies remain conducive to investment, private sector development and trade.
<b>Objective</b> Viable fruits and nuts sector with backward linkages to poor rural smallholders established. Fruit Armenia fully privatised.	<ul style="list-style-type: none"> <li>• At least 10% increase in exports of fruits and nuts by PY5.</li> <li>• At least 10% of commercially oriented farmers in the sector have established contractual arrangements by PY5.</li> <li>• At least 1500 full-time and seasonal jobs created by PY5.</li> <li>• A minimum of 1 500 additional rural poor smallholder farmers take up at least one of improved technologies by PY5.</li> <li>• At least 3 000 ha of land put under fruits/nut production.</li> <li>• A business plan detailing key milestones for privatisation developed by PY 3.</li> <li>• Fruit Armenia fully privatised by PY 8.</li> </ul>	Government export statistics. Farmer interviews. Government agricultural statistics. Enterprise statistics, including farms. Government employment records. Household interviews. Business Plan. Fruit Armenia accounts.	No deterioration in existing markets for fruit and nuts.  No distortions introduced in markets for land.  Sustainable mechanism put in place for operation and maintenance of infrastructure.
<b>Outcomes</b> Human and financial assets of participating households sustainably improved.	<ul style="list-style-type: none"> <li>• At least a fivefold increase in the value of fruit/nut orchard land.</li> <li>• A reduction of at least 50% in wood used for heating/cooking in villages where gasification introduced by PY5.</li> <li>• At least 10% reduction in work days lost.</li> </ul>	Cadastral values/market studies. Government forestry/agricultural statistics. Household interviews.	
<b>Outputs</b>			
1. Private sector based joint stock company set up.	<ol style="list-style-type: none"> <li>1.1. Fruit Armenia breaks even by PY4.</li> <li>1.2. At least 7 nurseries procure stocks from Fruit Armenia by PY 5.</li> <li>1.3. Fruit Armenia establishes contract farming arrangements with at least 450 poor smallholder farmers by PY5.</li> <li>1.4. At least 300 ha of new orchard land put under production by PY3.</li> </ol>	Fruit Armenia financial statements. Records from Fruit Armenia and nurseries. Fruit Armenia records. Government agricultural statistics and farmer interviews.	
2. Internationally acceptable certification facilities established.	<ol style="list-style-type: none"> <li>2.1. 40% increase of fruit and nut production that meets international quality standards by PY 5.</li> <li>2.2. At least two certification facilities financially sustainable by PY 5.</li> </ol>	Laboratory/facilities records.	
3. Rural infrastructure that facilitates commercial farming put in place.	<ol style="list-style-type: none"> <li>3.1. At least 15 villages connected to markets by feeder roads (40 km) by PY5.</li> <li>3.2. At least 20% reduction in post-harvest losses after road construction.</li> <li>3.3. Gasification of 95 villages (about 100 000 households) completed by PY 5.</li> <li>3.4. Improved drinking water supply provided to at least 35 villages (33 000 households) by PY 5.</li> </ol>	PAAU records (contracts). Farmer interviews.	

**Table 1: Rural Poverty and Agricultural and Rural Sector Issues**

<b>Priority Areas</b>	<b>Affected Group</b>	<b>Major Issues</b>	<b>Actions Needed</b>
Agricultural productivity	Subsistence-oriented and small-scale surplus farmers, mountain area farmers most disadvantaged.	<ul style="list-style-type: none"> <li>• Post-privatization diminution and fragmentation of farms.</li> <li>• Limited or no skills in modern agricultural practices.</li> <li>• Low returns to crop and livestock production, inadequate management systems, poor support from extension and animal health services and inability to add value through processing and marketing.</li> <li>• High cost but poor quality inputs, lack of appropriate scale, modern machinery; lack of transport vehicles; high disparity between input and producer's prices; and difficulties in marketing farm produce.</li> <li>• Limited numbers of small and medium scale processing enterprises.</li> <li>• Poorly organised marketing and market information systems</li> </ul>	<ul style="list-style-type: none"> <li>• Stimulate demand for and supply of high quality agricultural production at all points along the commodity chain.</li> <li>• Facilitate the acquisition of modern, appropriate-scale technology (purchased or leased).</li> <li>• Create effective linkages of small producers to private sector sources of technical support and market outlets/quality control.</li> </ul>
Employment opportunities	All poor rural people, mountain areas most disadvantaged.	<ul style="list-style-type: none"> <li>• Little on and off-farm employment opportunities in the rural areas.</li> <li>• Workforce underemployed.</li> <li>• Low incomes from uncompetitive wage employment.</li> </ul>	<ul style="list-style-type: none"> <li>• Small and medium enterprise development/creation with resulting increase in jobs and family income.</li> </ul>
Rural finance	All poor rural people.	<ul style="list-style-type: none"> <li>• Scarcity of rural financial institutions and appropriate instruments.</li> <li>• High interest and rigid collateral requirements.</li> <li>• Reluctance of commercial banks to extend credit to small farmers, particularly in the form of investment and working capital.</li> <li>• Negative experience with credit among farmers.</li> <li>• Constraining and patchy legal framework.</li> </ul>	<ul style="list-style-type: none"> <li>• Use of equity funding to provide working and long-term investment capital.</li> <li>• Medium and long-term on-lending funds to be made available in order that production and investment credit can be made available to smallholders.</li> <li>• More innovative financial products to be offered by banks to overcome collateral difficulties.</li> <li>• Lending interest rates reduced due to increased competition and reduction in transaction costs.</li> </ul>

**Table 1: Rural Poverty and Agricultural and Rural Sector Issues (cont'd)**

<b>Priority Areas</b>	<b>Affected Group</b>	<b>Major Issues</b>	<b>Actions Needed</b>
Business support services	Entrepreneurs (existing and potential formal and non-formal).	<ul style="list-style-type: none"> <li>• Lack of commercially viable technical, financial, managerial and informational support services appropriate to sustainable market-oriented rural/ agricultural sector growth.</li> <li>• Little understanding of role of specialized services in developing/improving business.</li> <li>• Lack of access to specialized services.</li> </ul>	<ul style="list-style-type: none"> <li>• Development of network of technical and business intermediation service providers, capable of supplying range of services.</li> <li>• Provision of services at discounted cost for proprietors of business entities, to stimulate demand for services.</li> </ul>
Infrastructure	All poor rural people in the mountain areas, but subsistence-oriented and small-scale surplus farmers in particular.	<ul style="list-style-type: none"> <li>• Deteriorated infrastructure in very poor areas.</li> <li>• Limited rehabilitation of infrastructure, except through donor funded programmes.</li> </ul>	<ul style="list-style-type: none"> <li>• Link infrastructure investment decisions to commercial viability, environmental acceptability and assured provision for operation and maintenance.</li> <li>• Rehabilitate existing irrigation systems where technically appropriate and cost-effective with emphasis on secondary, tertiary and in-field distribution.</li> <li>• Identify and seek means of delivery of new, modern, efficient, small-scale irrigation systems.</li> <li>• Promote and establish an appropriate policy and legal environment in partnership with the private sector.</li> </ul>

**Table 2: Organization Capabilities Matrix**

Organization	Strengths	Weaknesses	Opportunities/Threats	Remarks
<b>Enablers</b>				
Ministry of Food and Agriculture	<ul style="list-style-type: none"> <li>Some knowledge about the rural situation and the technical potential of different agricultural zones.</li> <li>Presence in all <i>marzes</i>.</li> </ul>	<ul style="list-style-type: none"> <li>Subject to frequent reorganization.</li> <li>Internally incoherent with many technical departments under-funded, inadequately staffed and ill-equipped.</li> <li>Separated in responsibility from key agricultural functions, e.g. irrigation.</li> <li>Dependent upon supplementary donor-funded assistance to maintain even a minimal capacity for policy, regulation and coordination of agricultural development.</li> <li>New agriculture strategy still under consideration.</li> </ul>	<ul style="list-style-type: none"> <li>Stripping out of ineffective technical departments and strengthening of policy, regulatory and coordination capability, i.e. relinquishing of implementing functions and reorientation to advisory and supervisory/monitoring role.</li> </ul>	<ul style="list-style-type: none"> <li>Increase/improve regulatory role and limit direct participation in service provision.</li> </ul>
Ministry of Trade and Economic Development	<ul style="list-style-type: none"> <li>Mandate to encourage small and medium enterprise development.</li> </ul>	<ul style="list-style-type: none"> <li>Confusion between government and private sector roles.</li> <li>Staffed from government civil service with little understanding of needs and concerns of the private sector.</li> </ul>	<ul style="list-style-type: none"> <li>Reorientation of ministry culture towards regulation would help build trust in business service providers.</li> </ul>	<ul style="list-style-type: none"> <li>Likely limited role in programme implementation.</li> </ul>
<i>Marz</i> Administration/	<ul style="list-style-type: none"> <li>Directly linked to Prime Minister.</li> <li>Concerned with well being of rural poor people.</li> </ul>	<ul style="list-style-type: none"> <li>Uncertain linkage with sector ministries.</li> </ul>	<ul style="list-style-type: none"> <li>Potential to intervene in investment decision making.</li> <li>May provide funding for infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>Limited role in programme implementation.</li> </ul>
Local Government	<ul style="list-style-type: none"> <li>Elected by communities.</li> </ul>	<ul style="list-style-type: none"> <li>Little independent revenue base.</li> <li>Limited understanding of commercial concerns.</li> </ul>	<ul style="list-style-type: none"> <li>Private sector development seen as potential basis for increased revenue, likely to be supportive.</li> </ul>	<ul style="list-style-type: none"> <li>Scope for development of public/private partnerships.</li> </ul>
<b>Service Providers</b>				
Fund for Rural Economic Development in Armenia (FREDA)	<ul style="list-style-type: none"> <li>Unique source of equity financing for agricultural and rural development.</li> <li>Close engagement and familiarity with IFAD-financed initiatives in Armenia.</li> </ul>	<ul style="list-style-type: none"> <li>Recently established and still developing its operational modalities</li> </ul>	<ul style="list-style-type: none"> <li>Beginning to attract interest in capitalization from international sources.</li> </ul>	<ul style="list-style-type: none"> <li>Likely to be important to development of agro-processing and agro-trading.</li> </ul>
Universal credit organizations (UCOs)	<ul style="list-style-type: none"> <li>Small loan size, adequate for seasonal loans.</li> <li>Women clients.</li> </ul>	<ul style="list-style-type: none"> <li>Urban or peri-urban.</li> <li>Financed almost exclusively from donor grants.</li> </ul>	<ul style="list-style-type: none"> <li>Potential for micro-level financial intermediation.</li> </ul>	<ul style="list-style-type: none"> <li>RACP could aim to graduate clients from UCOs to formal banks.</li> </ul>
Other financing institutions	<ul style="list-style-type: none"> <li>Extensive training of FI personnel in loan assessment completed by external donors.</li> <li>Some MFIs operating in programme area.</li> </ul>	<ul style="list-style-type: none"> <li>Commercial banks still relatively reluctant to lend to agricultural/rural enterprises and may become more so in the context of the global financial crisis.</li> </ul>	<ul style="list-style-type: none"> <li>Build upon longstanding partnerships with existing organizations.</li> <li>Some reputable micro-finance NGOs.</li> </ul>	<ul style="list-style-type: none"> <li>Some problems with policy and legal environment.</li> <li>Fragmentation of micro-finance initiatives.</li> </ul>
<b>Client Organizations</b>				
Producers Organizations	<ul style="list-style-type: none"> <li>Nascent producer unions (seed, potato, horticulture) beginning to find voice.</li> </ul>	<ul style="list-style-type: none"> <li>Farmer unions still few.</li> <li>Localized membership.</li> </ul>	<ul style="list-style-type: none"> <li>Vehicle for greater market-orientation of agriculture.</li> </ul>	

**Table 3: Complementary Donor Initiatives and Partnership Potential**

Donor/Agency	Nature of Programme	Programme and Coverage	Status	Complementarity/ Synergy Potential
USAID	Current Strategy 2009-2013 focuses on: Peace and Security, Economic Growth (fiscal policy, trade and investment, financial sector, energy, water, communication), Democracy and Governance and Social and Health Portfolio.	Business Advisory Services 2007-2010, USD 7.3 m; Financial Sector Deepening Project 2006-2009, USD 2.2 m; and Local Government Programme (LGP) – Phase 3, 2005-2009, USD 7.3 m.	All ongoing.	Some potential connection in <ul style="list-style-type: none"> <li>• Business Advisory Services.</li> <li>• Policy and regulatory environment for rural finance and agri-business.</li> <li>• Gasification, drinking water, solid waste management related to LGP.</li> </ul>
World Bank	Country Partnership Strategy 2009-2012 directed to: (i) Addressing Vulnerability (small-scale infrastructure for job creation); and (ii) Promoting Competiveness and Growth. Also the Bank has a food safety agenda.	Current initiatives of relevance to RACP are: (i) the Rural Enterprise and Small-scale Commercial Agriculture Development (RESCAD) project, comprising three components: Small Rural Business Support; Farm-focused Development Support; and Community-focused Economic Development; and (ii) the Lifeline Roads Improvement Project. An Agricultural Competitiveness Project including value chain development/food safety for meat and dairy is currently under consideration.	Ongoing and planned.	Strong potential <ul style="list-style-type: none"> <li>• RESCAD’s competitive small grants programme provides a vehicle for accelerated technology transfer and improved market access and links between rural processors and producers.</li> <li>• Scope for complementarity with RACP’s RTI sub-component</li> <li>• Scope for collaboration on food safety.</li> <li>• Possible scope for complementarity with a recently approved project for rehabilitation of primary irrigation canals in Talin District, a RACP Component 1 pilot area.</li> </ul>
UNDP	UNDAF 2010-2015: Poverty Reduction; Governance; Environmental Management.	National.	Ongoing.	Some potential <ul style="list-style-type: none"> <li>• Solid Waste Management.</li> <li>• Gender Issues.</li> <li>• Development of indicators of rural poverty reduction.</li> </ul>
FAO	Access to information for rural people related to food security and possibly technology and markets.	National.	Ongoing.	<ul style="list-style-type: none"> <li>• Some potential.</li> </ul>
Millennium Challenge Corporation/Millennium Challenge Armenia	Irrigation and Rural Roads Rehabilitation under Water to Market Activity (WMA).	National.	Ongoing.	Some potential: <ul style="list-style-type: none"> <li>• Complementary infrastructure.</li> </ul>

**Table 4: Target Group Priority Needs and Programme Proposals**

Typology	Poverty Levels And Causes	Coping Actions	Priority Needs	Project Response
Subsistence-oriented and small-scale surplus farmers.	<b>Moderate to severe</b> Post privatization diminution and fragmentation of farms. Limited development of mountain areas. Limited availability of working and investment capital. Often poor state of infrastructure (roads, irrigation schemes, etc) raises production and transaction costs.	<ul style="list-style-type: none"> <li>• Production, surplus sold or bartered immediately after harvest.</li> <li>• Migration abroad or to urban areas in search of wage employment.</li> <li>• Subsistence level farming with little or no relationship to markets.</li> </ul>	<ul style="list-style-type: none"> <li>• Affordable, efficient irrigation.</li> <li>• Access to technical and marketing information and opportunities.</li> <li>• Training in farm management and marketing techniques.</li> <li>• Appropriate, market-oriented rural financial services and instruments.</li> </ul>	<ul style="list-style-type: none"> <li>• Vertically integrated support to Horticulture (Fruits and Nuts) Value Chain Development (HVCD) (encompassing at the poor smallholder production level technology transfer and husbandry training and using contract farming and linkage to appropriate financial instruments as modalities and also including thereafter handling and marketing thereby linking producers to remunerative markets.</li> <li>• Bundling of HVCD support with support to improved access to irrigation and roads.</li> </ul>
Un- and underemployed rural population.	<b>Moderate to severe</b> Loss of employment opportunities after break up of Soviet Union. Lack of diversification and differentiation in the rural economy.	<ul style="list-style-type: none"> <li>• Forced rural people into farming in order to survive.</li> <li>• Migration abroad and to urban areas in search of wage employment.</li> <li>• Small numbers of SMEs and these often operating under capacity.</li> </ul>	<ul style="list-style-type: none"> <li>• Better employment and income-earning opportunities.</li> <li>• Improved rural infrastructure.</li> <li>• Better access to services to enhance or establish rural SMEs/diversified NFRE.</li> </ul>	<ul style="list-style-type: none"> <li>• Generation of full-time and seasonal employment associated with HVCD support and support to rural infrastructure.</li> <li>• Linkage to equity financing for agro-processing and agro-trading.</li> <li>• Increasing growth and diversification opportunities in the rural economy through support to gasification, domestic water supply, and drainage.</li> </ul>
Poor Rural Women	<b>Moderate to severe</b>	<ul style="list-style-type: none"> <li>• Subsistence level farming.</li> <li>• Seasonal and part-time wage labour.</li> </ul>	<ul style="list-style-type: none"> <li>• Greater opportunities to increase remunerative farm production.</li> <li>• Greater opportunities for wage employment/ piecework.</li> <li>• Better access to rural finance.</li> <li>• Better opportunities for livelihood options that can combine domestic responsibilities with increased assets and income.</li> </ul>	Mainstreaming with respect to the various activities and benefits listed above, including: (i) at least a third of beneficiary farm households contracted under HVCD to be woman-headed; (ii) at least a third of recipients of financial products developed under the Programme to be women <sup>56</sup> ; and (iii) at least 40% of seasonal and permanent jobs generated by Programme-supported activities (primary production, harvesting, nurseries, processing, trading) to be filled by women.

<sup>56</sup> Currently women beneficiaries amount to around 8% of rural debt-financing portfolios. Programme Analysis and Administration Unit (PAAU) data.



**Table 5: Stakeholder Matrix/Programme Actors and Roles**

<b>Component</b>	<b>Principal Lines of Action</b>	<b>Coverage</b>	<b>Perennial Institutions Involved</b>	<b>Potential Contractors/ Periodic Inputs</b>	<b>Other Possible Partners in Execution</b>
<b>Support to Fruits and Nuts Sector</b>	Establishment of Fruit Armenia.  Establishment of 700 ha of modern fruits and nuts orchards on the basis of 450-500 contracted poor smallholder producers.	Three pilot areas in Vayots Dzor and Tavush marzes and Talin district of Aragatsotn marz then national.	PAAU. Fruit Armenia.	International and national technical assistance.	Federation of Farmers Associations.  Community-based organisations.
	Promotion of Standards and Exports - Programme support to the Central Seeds Laboratory (CSL). - Programme support to the Anti-epizootic and Diagnostic Residual Pesticide/Antibiotic Food Safety Laboratory (ADRP). - Programme Export Promotion Support to the Union of Exporters of Armenia (UEA). -Training of Private Nurseries. -Training of Non-contracted Farmers. -Assistance in linking nurseries and non-contracted farmers to appropriate financing.	National.	PAAU. CSL. ADRP. UEA.	International and national technical assistance.	Federation of Farmers Associations.  Community-based organisations.  Financial Institutions.  National and international supermarket chains.
<b>Rural Infrastructure</b>	Public Utilities Investments - Water supply, natural gas supply and storm-water drainage.	Communities in disadvantaged mountain areas with high poverty incidence manifested in terms of lack of assets and income, e.g. landlessness, small holdings, unemployment and negligible off-farm enterprise development.	PAAU (Technical Section). Local Government. Ministry of Nature Protection. Utility Companies.	Infrastructure contractors.	
	Rural Transportation Investments - Rural roads and ancillary structures linked to investments under 'Support to Fruits and Nuts Sector.	Three pilot areas in Vayots Dzor and Tavush marzes and Talin district of Aragatsotn marz then national.	PAAU (Technical Section). Local Government. Ministry of Nature Protection.	Infrastructure contractors.	



## ANNEX V: Summary of Main Cost Tables

**Table 1: Expenditure Accounts by Components – Totals Including Contingencies USD '000)**

	Support to Fruits and Nuts Sector		Rural Infrastructure			Total
	Establishment of Fruit Armenia	Promotion of Standards and Export	Public Utilities Investments	Rural Transport Investments	Programme Management	
<b>I. Investment Costs</b>						
<b>A. Civil Works</b>						
Civil Works	436.0	-	29 664.0	4 194.0	-	34 294.0
Design and Supervision	-	-	1 779.8	251.6	-	2 031.5
<b>Subtotal Civil Works</b>	436.0	-	31 443.8	4 445.6	-	36 325.5
B. Equipment and goods	75.0	2.1	-	-	31.7	108.8
C. Agric. Equipment and Goods	6 633.5	118.5	-	-	-	6 752.0
D. Vehicles	310.0	-	-	-	55.4	365.4
<b>E. Technical Assistance</b>						
International Technical Assistance	499.8	50.1	-	-	-	549.9
National Technical Assistance	-	131.7	-	-	128.9	260.5
<b>Subtotal Technical Assistance</b>	499.8	181.8	-	-	128.9	810.5
F. Training	-	250.1	-	-	25.2	275.3
<b>Total Investment Costs</b>	7 954.3	552.5	31 443.8	4 445.6	241.3	44 637.6
<b>II. Recurrent Costs</b>						
A. Salaries	-	-	-	-	1 507.7	1 507.7
B. Operation and Maintenance	-	-	-	-	255.6	255.6
C. Other Operating Costs	-	-	-	-	951.8	951.8
D. FA Operation and Maintenance	4 992.9	-	-	-	-	4 992.9
<b>Total Recurrent Costs</b>	4 992.9	-	-	-	2 715.0	7 708.0
<b>Total PROGRAMME COSTS</b>	12 947.2	552.5	31 443.8	4 445.6	2 956.3	52 345.6
Taxes	1 949.1	20.2	4 760.1	667.1	326.6	7 723.1
Foreign Exchange	5 613.0	262.5	-	-	279.6	6 155.1

**Table 2: Expenditure Accounts Programme Cost Summary**

Expenditure Category	(AMD '000)			(USD '000)			% Foreign Exchange	% of Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
<b>I. Investment Costs</b>								
<b>A. Civil Works</b>								
Civil Works	13 203 190.0	-	13 203 190.0	34 294.0	-	34 294.0	-	66
Design and Supervision	782 119.8	-	782 119.8	2 031.5	-	2 031.5	-	4
<b>Subtotal Civil Works</b>	13 985 309.8	-	13 985 309.8	36 325.5	-	36 325.5	-	70
B. Equipment and goods	16 478.0	24 717.0	41 195.0	42.8	64.2	107.0	60	-
C. Agric. Equipment and Goods	693 292.0	1 906 228.0	2 599 520.0	1 800.8	4 951.2	6 752.0	73	13
D. Vehicles	48 129.8	92 395.2	140 525.0	125.0	240.0	365.0	66	1
<b>E. Technical Assistance</b>								
International Technical Assistance	-	211 673.0	211 673.0	-	549.8	549.8	100	1
National Technical Assistance	98 945.0	-	98 945.0	257.0	-	257.0	-	-
<b>Subtotal Technical Assistance</b>	98 945.0	211 673.0	310 618.0	257.0	549.8	806.8	68	2
F. Training	54 546.8	50 327.2	104 874.0	141.7	130.7	272.4	48	1
<b>Total Investment Costs</b>	14 896 701.4	2 285 340.4	17 182 041.8	38 692.7	5 935.9	44 628.7	13	85
<b>II. Recurrent Costs</b>								
A. Salaries	573 232.3	-	573 232.3	1 488.9	-	1 488.9	-	3
B. Operation and Maintenance	46 200.0	46 200.0	92 400.0	120.0	120.0	240.0	50	-
C. Other Operating Costs	312 108.0	32 082.1	344 190.0	810.7	83.3	894.0	9	2
D. FA Operation and Maintenance	1 922 280.0	-	1 922 280.0	4 992.9	-	4 992.9	-	10
<b>Total Recurrent Costs</b>	2 853 820.2	78 282.1	2 932 102.3	7 412.5	203.3	7 615.9	3	15
Physical Contingencies	17 750 521.6	2 363 622.5	20 114 144.1	46 105.3	6 139.3	52 244.5	12	100
Price Contingencies	18 161.8	4 283.7	22 445.5	47.2	11.1	58.3	19	-
Price Contingencies	135 350.1	16 670.1	152 020.2	38.1	4.6	42.7	11	-
<b>Total Programme Costs</b>	17 904 033.5	2 384 576.3	20 288 609.8	46 190.5	6 155.1	52 345.6	12	100

**Table 3: Programme Components by Year – Totals Including Contingencies (USD '000)**

<b>Components</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
<b>A. Support to Fruits and Nuts Sector</b>						
1. Establishment of Fruit Armenia	3 744.0	3 224.2	3 916.5	2 062.5	-	12 947.2
2. Promotion of Standards and Export	193.4	76.9	151.9	103.3	27.1	552.5
<b>Subtotal Support to Fruits and Nuts Sector</b>	<b>3 937.4</b>	<b>3 301.1</b>	<b>4 068.4</b>	<b>2 165.8</b>	<b>27.1</b>	<b>13 499.8</b>
<b>B. Rural Infrastructure</b>						
1. Public Utilities Investments	9 593.2	12 657.6	9 193.1	-	-	31 443.8
2. Rural Transportation Investments	840.8	887.9	1 158.8	890.4	667.8	4 445.6
<b>Subtotal Rural Infrastructure</b>	<b>10 434.0</b>	<b>13 545.4</b>	<b>10 351.9</b>	<b>890.4</b>	<b>667.8</b>	<b>35 889.5</b>
C. Programme Management	644.0	730.1	646.2	457.2	478.8	2 956.3
<b>Total PROGRAMME COSTS</b>	<b>15 015.4</b>	<b>17 576.6</b>	<b>15 066.5</b>	<b>3 513.4</b>	<b>1 173.7</b>	<b>52 345.6</b>

**Table 4: Expenditure Accounts by Year – Totals Including Contingencies (USD '000)**

	2011	2012	2013	2014	2015	Total
<b>I. Investment Costs</b>						
<b>A. Civil Works</b>						
Civil Works	10 229.4	12 828.7	9 765.9	840.0	630.0	34 294.0
Design and Supervision	590.6	766.7	586.0	50.4	37.8	2 031.5
<b>Subtotal Civil Works</b>	10 820.0	13 595.4	10 351.9	890.4	667.8	36 325.5
B. Equipment and goods	77.1	31.7	-	-	-	108.8
C. Agric. Equipment and Goods	2 406.5	1 993.0	2 352.5	-	-	6 752.0
D. Vehicles	250.0	75.4	40.0	-	-	365.4
<b>E. Technical Assistance</b>						
International Technical Assistance	121.5	142.8	142.8	142.8	-	549.9
National Technical Assistance	63.7	63.5	38.5	38.8	56.2	260.5
<b>Subtotal Technical Assistance</b>	185.2	206.3	181.3	181.6	56.2	810.5
F. Training	110.6	34.5	34.7	86.0	9.6	275.3
<b>Total Investment Costs</b>	13 849.4	15 936.4	12 960.3	1 157.9	733.5	44 637.6
<b>II. Recurrent Costs</b>						
A. Salaries	354.5	356.3	358.1	218.3	220.5	1 507.7
B. Operation and Maintenance	52.6	52.9	53.2	48.2	48.7	255.6
C. Other Operating Costs	185.3	212.6	213.7	169.2	170.9	951.8
D. FA Operation and Maintenance	573.6	1 018.4	1 481.2	1 919.7	-	4 992.9
<b>Total Recurrent Costs</b>	1 166.0	1 640.2	2 106.1	2 355.5	440.1	7 708.0
<b>Total PROGRAMME Costs</b>	15 015.4	17 576.6	15 066.5	3 513.4	1 173.7	52 345.6

**Table 5: Disbursement Accounts by Financiers (USD '000)**

Disbursement category	IFAD		Government		OFID	Beneficiaries	USAID	To be determined	Total
	Loan	Grant	Taxes	Cash					
<b>A. Civil Works</b>									
Civil Works	1 227.6	-	5 088.5	2 999.7	17 484.3	3 058.7	1 874.9	2 124.2	33 858.0
Design and Supervision	104.7	-	338.6	-	1 319.4	-	126.0	142.7	2 031.5
<b>Subtotal Civil Works</b>	<b>1 332.3</b>	<b>-</b>	<b>5 427.2</b>	<b>2 999.7</b>	<b>18 803.7</b>	<b>3 058.7</b>	<b>2 000.9</b>	<b>2 266.9</b>	<b>35 889.5</b>
B. Equipment and Goods	125.9	-	26.5	-	-	-	-	-	152.4
C. Vehicles	42.0	-	13.4	-	-	-	-	-	55.4
D. Technical Assistance	310.7	-	-	-	-	-	-	-	310.7
E. Training	275.3	-	0.0	-	-	-	-	-	275.3
F. Recurrent Costs	503.0	-	201.3	-	503.0	-	-	-	1 207.3
G. Salaries	701.1	-	105.5	-	701.1	-	-	-	1 507.7
H. FA Funding	10 198.3	499.8	1 949.1	300.0	-	-	-	-	12 947.2
<b>Total PROGRAMME</b>	<b>13 488.6</b>	<b>499.8</b>	<b>7 723.1</b>	<b>3 299.7</b>	<b>20 007.9</b>	<b>3 058.7</b>	<b>2 000.9</b>	<b>2 266.9</b>	<b>52 345.6</b>

**Table 6: Expenditure Accounts by Financiers**

	IFAD		Government		OFID	Beneficiaries	USAID	To be determined	Total
	Loan	Grant	Taxes	Cash					
<b>I. Investment Costs</b>									
<b>A. Civil Works</b>									
Civil Works	1 341.0	-	5 111.2	3 299.7	17 484.3	3 058.7	1 874.9	2 124.2	34 294.0
Design and Supervision	104.7	-	338.6	-	1 319.4	-	126.0	142.7	2 031.5
<b>Subtotal Civil Works</b>	<b>1 445.6</b>	<b>-</b>	<b>5 449.8</b>	<b>3 299.7</b>	<b>18 803.7</b>	<b>3 058.7</b>	<b>2 000.9</b>	<b>2 266.9</b>	<b>36 325.5</b>
B. Equipment and goods	87.1	-	21.8	-	-	-	-	-	108.8
C. Agric. Equipment and Goods	5 626.5	-	1 125.6	-	-	-	-	-	6 752.0
D. Vehicles	276.8	-	88.6	-	-	-	-	-	365.4
<b>E. Technical Assistance</b>									
International Technical Assistance	50.1	499.8	-	-	-	-	-	-	549.9
National Technical Assistance	260.5	-	-	-	-	-	-	-	260.5
<b>Subtotal Technical Assistance</b>	<b>310.7</b>	<b>499.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>810.5</b>
F. Training	275.3	-	0.0	-	-	-	-	-	275.3
<b>Total Investment Costs</b>	<b>8 022.0</b>	<b>499.8</b>	<b>6 685.8</b>	<b>3 299.7</b>	<b>18 803.7</b>	<b>3 058.7</b>	<b>2 000.9</b>	<b>2 266.9</b>	<b>44 637.6</b>
<b>II. Recurrent Costs</b>									
A. Salaries	701.1	-	105.5	-	701.1	-	-	-	1 507.7
B. Operation and Maintenance	106.5	-	42.6	-	106.5	-	-	-	255.6
C. Other Operating Costs	396.6	-	158.7	-	396.6	-	-	-	951.8
D. FA Operation and Maintenance	4 262.5	-	730.5	-	-	-	-	-	4 992.9
<b>Total Recurrent Costs</b>	<b>5 466.6</b>	<b>-</b>	<b>1 037.3</b>	<b>-</b>	<b>1 204.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>7 708.0</b>
<b>Total PROGRAMME</b>	<b>13 488.6</b>	<b>499.8</b>	<b>7 723.1</b>	<b>3 299.7</b>	<b>20 007.9</b>	<b>3 058.7</b>	<b>2 000.9</b>	<b>2 266.9</b>	<b>52 345.6</b>



**Table 7: Disbursement by Semester (USD '000)**

Semester	IFAD		Government		OFID	Beneficiaries	USAID	To be determined	Costs Financed
	Loan	Grant	Cash	Taxes					
1	1 918.6	35.7	600.0	1 106.1	2 952.5	444.8	300.1	149.9	7 507.7
2	1 918.6	35.7	600.0	1 106.1	2 952.5	444.8	300.1	149.9	7 507.7
3	1 784.8	71.4	599.9	1 305.6	3 898.9	577.6	400.2	149.9	8 788.3
4	1 784.8	71.4	599.9	1 305.6	3 898.9	577.6	400.2	149.9	8 788.3
5	1 937.3	71.4	450.0	1 123.6	2 959.4	441.3	300.1	250.1	7 533.2
6	1 937.3	71.4	450.0	1 123.6	2 959.4	441.3	300.1	250.1	7 533.2
7	973.7	71.4	-	244.6	96.1	37.5	-	333.5	1 756.7
8	973.7	71.4	-	244.6	96.1	37.5	-	333.5	1 756.7
9	129.9	-	-	81.7	97.0	28.1	-	250.1	586.8
10	129.9	-	-	81.7	97.0	28.1	-	250.1	586.8
<b>Total</b>	<b>13 488.6</b>	<b>499.8</b>	<b>3 299.7</b>	<b>7 723.1</b>	<b>20 007.9</b>	<b>3 058.7</b>	<b>2 000.9</b>	<b>2 266.9</b>	<b>52 345.6</b>

**Table 8: Procurement Arrangements (USD '000)**

<b>Category</b>	<b>ICB</b>	<b>Consulting Services</b>	<b>Shopping</b>	<b>Direct Contracting</b>	<b>Other</b>	<b>Govt.</b>	<b>Total</b>
A. Civil Works	36 025.5 (1 445.6)	-	-	-	-	300.0	36 325.5 (1 445.6)
B. Equipment and Goods	608.0 (506.6)	-	4 712.9 (3 923.6)	1 540.0 (1 283.3)	-	-	6 860.9 (5 713.6)
C. Vehicles	365.4 (276.8)	-	-	-	-	-	365.4 (276.8)
D. Technical Assistance	-	810.5 (310.7)	-	-	-	-	810.5 (310.7)
E. Training	-	-	-	-	275.3 (275.3)	-	275.3 (275.3)
F. Recurrent Costs	-	-	-	-	5 165.2 (3 801.2)	-	5 165.2 (3 801.2)
G. Salaries	-	1 009.8 (939.1)	-	1 532.9 (726.3)	-	-	2 542.7 (1 665.4)
<b>Total</b>	<b>36 998.9 (2 229.1)</b>	<b>1 820.3 (1 249.8)</b>	<b>4 712.9 (3 923.6)</b>	<b>3 072.9 (2 009.6)</b>	<b>5 440.6 (4 076.5)</b>	<b>300.0 -</b>	<b>52 345.6 (13 488.6)</b>

Figures in parentheses financed by IFAD loan.

## **ANNEX VI: Terms of Reference of Key Staff**

### **PAAU Value Chain Development Coordinator**

#### **Background**

PAAU Value Chain Coordinator will coordinate and support the value chain development-related operations in the PAAU, particularly linked to the operations of Component 1 of RACP. During the start-up of RACP, the PAAU Value Chain Development Coordinator (PVCDC) would be: (i) responsible for coordinating GOA's in-kind grant contribution (land and buildings); (ii) supporting with Technical Assistance the pre-identification of development sites for orchards; (iii) preparing Terms of Reference (TOR) for the preparation of the fully fledged business plan for FA; and (iv) further developing the TOR for senior and junior staff of FA.

#### **Duties and Responsibilities**

The duties and responsibilities of PAAU Value chain Coordinator will include:

- In collaboration with the respective institutions participating in the RACP, preparing relevant TORs for consultants to develop the TIS, export catalogue, market studies in potential import countries and TA input to ADRP and CSL as required.
- In collaboration with relevant institutions, preparing participation in international trade fairs.
- In collaboration with relevant institutions, preparing for visiting trade delegations.
- In collaboration with relevant institutions, organising trial shipments of horticultural produce to potential markets.
- Coordinating the development of a national branding package for Armenia's horticultural sector.
- Assuring that the Programme's gender-related concerns are addressed, gender-related targets are met and gender issues are mainstreamed into Programme operations in collaboration with the PAAU Gender Focal Point/Coordinator.
- Monitoring the value chain activities of the RACP.
- Coordinating the promotion of clustering of orchards to allow FA to enter into forward contracting with farmers developing their own orchards.
- Encouraging financial institutions to develop appropriate financial products for the orchard sub-sector.
- Preparing inputs as required for the PAAU MIS.
- Assisting the PAAU Director as required.

#### **Qualifications**

The candidate should have a university degree in economics, marketing, agro-economics or other relevant field. The candidate has to have a strong commercial orientation and the capacity to motivate the actors in the value chain. Previous experience in a similar position would be an added advantage.

## **PAAU Gender Focal Point/Coordinator**

### **Programme Description**

The Rural Assets Creation Programme (RACP) has the overall goal of reducing rural poverty in Armenia by: (i) increasing smallholders' incomes and assets; and (ii) improving poor people's access to agriculture production technologies and to social and economic infrastructure that gives direct and indirect support to primary producers, agro-processors and agro-related traders. Investment under RACP would be organised under two main components: Support to Fruits and Nuts Sector and Rural Infrastructure. A very important segment of the Programme's target groups are poor rural women in view of their significant role in agriculture. To ensure more effective outreach to these women the RACP Gender Focal Point will have the following main tasks:

### **Job Description**

The overall responsibility of the RACP Gender Focal Point/Coordinator will be to oversee the day-to-day implementation of the Programme's activities as related to its gender concerns, objectives and targets and to mainstream gender issues into RACP operations. This would include the following:

1. Implementation and daily monitoring of the "Capacity Building and Knowledge Management for Gender Equality" Regional programme;
2. Cooperate with the IFAD Technical Assistance Programme on Gender Mainstreaming;
3. Raise awareness and enhance the knowledge of RACP staff about the gender equality issues;
4. Organize gender related trainings for RACP head office and field staff;
5. Assure that women targeted under the Programme are in receipt of adequate awareness raising, explanations of contract farming modalities and training under the RACP;
6. Analyze RACP activities starting from a gender disaggregated needs assessment, and the participation of both women and men in community activities, training and community organizations;
7. Analyze the obstacles that rural women face in accessing the services offered by the RACP;
8. Design and implement a RACP gender mainstreaming plan that integrates gender equality perspectives into the Programme operations;
9. Identify specific issues that require additional Programme intervention in the area of gender mainstreaming;
10. Establish contacts with Government organizations and/or NGOs working on gender issues and empowerment of women in the rural areas;
11. Organize discussion groups, round tables, seminars and workshops for rural women;
12. Examine RACP monitoring and evaluation in relation to gender disaggregated data availability in all pr reports as a tool for analysis of women and men's participation in Programme activities; and
13. Undertake any other activities in the area of gender mainstreaming as may be assigned.

**REPUBLIC OF ARMENIA: RURAL ASSET CREATION PROGRAMME (RACP)  
PROGRAMME FINAL DESIGN REPORT  
MAIN REPORT  
ANNEX VI: TERMS OF REFERENCE OF KEY STAFF**

---

**Qualifications Required:**

Knowledge and skills:	University Degree. Knowledge of gender equality issues. Knowledge of participatory community development methodologies. Excellent communication and organization skills. Flexibility, willingness and ability to work within a team. Excellent computer skills.
Experience:	At least 2 years of working with the developmental projects. At least 2 years of working with gender mainstreaming issues. Experience of facilitation of training courses and/or seminars.
Languages:	Armenian, Russian, fluent English.

**DRAFT TERMS OF REFERENCE FOR SENIOR MANAGEMENT STAFF  
OF  
'FRUIT ARMENIA'**

**Background**

Fruit Armenia (FA) is a recently established Open Joint Stock Company with the aim of producing and exporting fresh fruit and nuts to Russia, CIS countries and the EU. The initial planned target is to establish 75 ha of apricot, 225 ha of peach/nectarine and 400 ha of walnuts orchards during 2011-2014. The orchards will be developed through contracts with farmers willing to participate with between 1 ha and 2 ha of land for the establishment of orchards. The FA would establish the orchards using the most modern technology and manage the orchards for a period of 12 years. FA will also establish a fruit packing house consisting of a pre-cooling unit, sorting machine and packaging line and refrigerated cold storage. A processing unit for walnut will also be constructed including a drying unit, mechanised sorting, vacuum packaging unit, and a climatized storage facility. FA will also establish a state-of-the-art nursery consisting of a tissue laboratory, grafting unit, rooting unit for bud sticks, varietal mother plant unit, rootstock mother unit and 15 ha of nursery for growing planting material up to the size ready for planting or sale. A workforce of around 50 persons would be working in Fruit Armenia.

FA is seeking qualified persons for the following management positions: Executive Director, Senior Technical Advisor (international), Financial Manager, Lawyer, Marketing Manager, Value Chain Manager, Nursery Agronomist/Manager, Cold Storage Manager and Processing Manager.

**EXECUTIVE DIRECTOR**

**Duties and Responsibilities**

The Executive Director (ED) will be directly responsible to the FA Board of Directors.

During the start-up phase of FA, the Executive Director with support from the FA management team will develop the procedures and systems to make FA operational including:

- Financial procedures including procurement, sale, and stores.
- Staff regulations.
- FA's overall administrative procedures and Management Information System (MIS).
- Administrative and technical procedures for: (i) contract farming; (ii) nursery development; (iii) orchard development, including introduction of GGAP; (iv) fruit pack house and cold handling facilities including HACCP and relevant ISO certifications; (v) walnut processing including HACCP and relevant ISO certifications; and (vi) technical issues related to marketing.

The financial, administrative, and technical procedures and systems put in place should be to the level required for eventual ISO 9001 certification.

**REPUBLIC OF ARMENIA: RURAL ASSET CREATION PROGRAMME (RACP)**  
**PROGRAMME FINAL DESIGN REPORT**  
**MAIN REPORT**  
**ANNEX VI: TERMS OF REFERENCE OF KEY STAFF**

---

The ED's daily duties and responsibilities will include:

- a) Provide leadership and manage the business and affairs of FA with his/her strong technical qualifications, knowledge of finance, skills in personnel management, and understanding of the business and markets of the horticultural sector.
- b) Command the respect of all employees of the FA.
- c) Design with the support of the senior FA staff a comprehensive strategic Business Plan for FA.
- d) Keep the FA Board of Directors informed in a timely fashion on major developments to enable the Board to discuss potential issues and make decisions.
- e) Ensure that the FA Annual Report is presented to the Board in a professional and timely manner.
- f) Recommend to the Board technical strategic directions for FA business and, when approved by the Board, implement the corresponding strategic, business and operational plans.
- g) Direct and monitor the technical activities of FA to achieve its objectives and goals and to maximise its assets while also having regard to the interests of other stakeholders of the FA, particularly the contract farmers.
- h) Ensure that sufficient monitoring, evaluation and impact assessment is undertaken to measure if FA is meeting its objectives.
- i) Oversee that technical management is done according to required standards.
- j) Coordinate the activities of hired consultants.
- k) Assure that the Programme's gender-related concerns are addressed, gender-related targets are met and gender issues are mainstreamed into Programme operations in collaboration with the PAAU Gender Focal Point/Coordinator.
- l) Prepare inputs as required for FA's Management Information System (MIS).

### **Qualifications**

The Executive Director should have a university degree in a subject relevant to the management of FA. He/she should have senior level experience in the management of large-scale, horticultural export-orientated company and strong knowledge in propagation of planting material as well as in international standards like GGAP, HACCP and ISO, relevant to producing and handling fresh horticultural produce for export. He/she should also have good knowledge of potential export markets for Armenian fruits and nuts.

## **SENIOR TECHNICAL ADVISOR (international)**

### **Duties and Responsibilities**

The Senior Technical Advisor (STA) will be directly responsible to the Executive Director and will act as the Deputy Executive Director of FA.

During the start-up of FA, the STA, with support from the technical management team, will support the Executive Director in developing the procedures and systems needed to make FA operational in relation to: (i) contract farming; (ii) nursery development; (iii) orchard development; (iv) fruit pack house and cold handling facilities; and (v) walnut processing.

The STA's daily duties and responsibilities will include:

- Providing leadership and managing the technical affairs of FA by using his/her strong technical qualifications and knowledge and understanding of the business and markets of the horticultural sector.
- Assisting the Executive Director in designing the Business Plan for FA.
- Overseeing and guiding the implementation of all technical aspects of FA operations.
- Managing the training of contract farmers.
- Managing the training of private nurseries.
- Managing the training of non-contract farmers.
- Ensuring that GGAP, HCCAP and relevant ISO certificates are valid.
- Gathering and preparing technical information regarding the most modern international horticultural techniques, including latest developments in terms of varieties and rootstock.
- Conducting regular seminars/training/workshops for all technical personnel to ensure that they are current with the most recent international developments in all aspects of orchard related issues.
- Preparing technical reports as may be required by the Executive Director and the Board of Directors.
- Assuring that the Programme's gender-related concerns are addressed, gender-related targets are met and gender issues are mainstreamed into Programme operations in collaboration with the PAAU Gender Focal Point/Coordinator.
- Carrying out other duties as may be requested by the Executive Director.

### **Qualifications**

The senior Technical Advisor should have a university/collage degree in relevant subjects related to the establishment and management of FA. He/she should have at least 10 years of senior level experience in the management and practical running of horticultural enterprises/orchards of the FA type. He/she should have also hands-on experience nursery operations as well as a good understanding of the international horticultural markets, with experience from the CIS markets as a special advantage.



## **FINANCIAL MANAGER**

### **Duties and Responsibilities**

The Financial Manager (FM) will be directly responsible to the Executive Director.

During the start-up phase of FA, the FM, with support from the FA Accountant, will support the Executive Director in developing the FA Financial Management Manual and procedures.

The FM's daily duties and responsibilities will include:

- Keeping the books of accounts.
- Accounting and postings.
- Maintaining all FA bank accounts.
- Preparing financial statements as required.
- Assisting yearly audits of FA.
- Monitoring all FA's investments.
- Being responsible for the MIS and its regular updating.

Assisting in the preparation of the following, as related to financial management:

- Annual financial reports.
- Updates of FA's Business Plan.
- Proposals for FA's dividend policy.
- Assistance with other matters related to financial management inputs.

### **Qualifications**

The FM should have a degree in Accounting, Finance, Economics, or Business Administration. A postgraduate CPA certificate would be an added advantage. The candidate should have at least 5 years practical experience with audit/advisory firms, financial institutions, private firms, or in similar relevant positions.

## **VALUE CHAIN MANAGER**

### **Duties and Responsibilities**

The Value Chain Manager will be directly responsible to the Senior Technical Advisor/Deputy Executive Director.

During the start-up phase of FA, the VCM, with support from FA's orchard development/management teams, would prepare all technical manuals needed for orchard establishment and management including pre- and-post harvest produce handling.

The VCM's daily duties and responsibilities will include:

- Preparing work plans for FA's six orchard development teams and ensuring the implementation of these plans.
- Ensuring that the orchard teams are up-to-date with best practices in modern orchard establishment and development.
- Ensuring up-to-date GGAP certification of all orchards supplying produce to FA.
- Responsibility for HACCP-related issues during product handling from farm to FA handling facilities.
- Responsible for certification related to HACCP from farm to FA handling facilities.
- Preparing annual procurement plans for orchard inputs.
- Responsibility to keep track of work provided by contracted farmers.
- Assisting the Senior Technical Advisor to expand FA's contract farming arrangements through forward contracts, which can be used by participating farmers as loan guarantees for debt financing to develop their orchards.
- Responsibility for training those farmers who want to develop their orchards using debt financing.
- Preparing technical reports as may be required by the Senior Technical Advisor.
- Carrying out other duties as may be requested by the Senior Technical Advisor.

### **Qualifications**

The position requires a person with a strong technical background in horticulture with a commercial orientation and the capacity to motivate the orchard teams and the farmers in the value chains, as well as the good communication skills to negotiate with FA-contracted farmers and with other stakeholders of FA.

## **NURSERY MANAGER**

The FA Nursery Manager (NM) will be directly responsible to the Senior Technical Advisor/Deputy Executive Director.

During the start-up of FA, the NM, with support from three tissue-laboratory technicians and the FA nursery agronomist will support the Senior Technical Advisor to prepare technical manuals and procedures for managing the FA tissue laboratory and the FA nursery.

### **Duties and Responsibilities**

The NM's duties and responsibilities include:

- Daily management of the tissue-lab and the nursery.
- Preparing detailed annual production plans.
- Preparing detailed annual procurement plans for the tissue-lab and nursery.
- Keeping abreast with the latest international development of new varieties and rootstock.
- Provision of relevant training to FA and private nursery staff and farmers in the most appropriate tissue and nursery technologies.
- Training of private nurseries in all aspects of plant propagation, including GOA standards and certification procedures of planting material.
- Attending relevant meetings with research institutions and universities and organising visits to FA's tissue-lab and nursery.
- Collecting local germ plasma for development of new and better rootstock.
- Preparing technical reports as may be required by the Senior Technical Advisor.
- Carrying out other duties as may be requested by the Senior Technical Advisor.

### **Qualifications**

The position requires a person with a strong theoretical background in plant propagation and knowledge of tissue cultivation, but also with a practical approach to nursery activities in a commercial company.

## **FRUIT AND NUT PROCESSING MANAGER**

The Fruit and Nut Processing Manager (FNPM) will be directly responsible to the Senior Technical Advisor/Deputy Executive Director.

During the start-up of FA, the FNPM will support the Senior Technical Advisor to prepare technical manuals and procedures for managing FA's fresh fruit and walnut handling facilities including the protocols for HACCP and relevant ISO standards.

### **Duties and Responsibilities**

The FNPM's duties and responsibilities include:

- Daily management of FA's handling and storage facilities for fruits and walnuts.
- Preparing detailed annual production plans.
- Preparing detailed annual procurement plans.
- Keeping abreast with the latest international developments in handling technologies related to fruit and nuts.
- Provision of relevant training to FA and private nursery staff and farmers in all aspects related to operating FA's produce handling facilities and to HACCP and relevant ISO standards.
- Assisting FA management to choose the technically best transporters for handling fresh produce.
- In close collaboration with FA's Value Chain Manager, establishing the best times for harvest.
- Preparing technical reports as may be required by the Senior Technical Advisor.
- Carrying out other duties as may be requested by the Senior Technical Advisor.

### **Qualifications**

The position requires a person with a degree in food engineering, food technology or food processing, with a minimum of 5 years of relevant work experience in commercial horticultural operations. The job also requires that the person has the capacity to motivate his staff, including the seasonal work force, to ensure the highest standards of produce quality and food safety.

## **MARKETING MANAGER**

The Marketing Manager (MM) will be directly responsible to the Senior Technical Advisor/Deputy Executive Director.

During the start-up of FA, the MM will support the Senior Technical Advisor to prepare technical manuals and procedures for domestic and export marketing.

### **Duties and Responsibilities**

The MM's duties and responsibilities include:

- Overall responsibility for FA's marketing activities.
- Development of FA's domestic and export marketing strategies.
- Developing, in close collaboration with the Union of Exporters of Armenia, a national branding of horticultural produce.
- Developing a specific branding of FA's produce.
- Keeping abreast with varietal trends of fruits and nuts and informing FA's Value Chain Manager, Nursery Manager, Fruit and Nut Processing Manager of these trends.
- Together with the other FA managers, preparing a strategy for testing new varieties for FA.
- Developing packaging material in support of the national and FA-specific branding.
- Developing a staff dress code signalling the FA's branding.
- Developing visual images for each orchard associated with FA which signal the company's branding.
- Seeking new markets and drafting contract proposals in collaboration with FA's Lawyer for the consideration of the Senior Technical Advisor.
- Preparing technical reports as may be required by the Senior Technical Advisor.
- Carrying out other duties as may be requested by the Senior Technical Advisor.

### **Qualification**

A university/college degree in marketing, economics or other relevant field. Minimum five years of working experience in export marketing of horticultural products.

## **COMPANY LAWYER**

The Company Lawyer (CL) will be directly responsible to the Executive Director (ED) and the Senior Technical Advisor/Deputy Executive Director.

During the start-up of FA, the CL will support the STA in preparing the necessary legal agreements/documents for contract farming, sales, employment and insurance as well as a legal framework for registration of FA intellectual property.

### **Duties and Responsibilities**

The CL's duties and responsibilities include:

- Overall responsibility for assuring FA congruence with best practices within the laws of Armenia and within international laws in relation to FA's trading arrangements.
- Managing the legal aspects of contract farming arrangements.
- Assisting the FA Value Chain Manager to expand FA's contract farming by providing farmers ready to develop their orchard with debt financing with forward contracts recognised by the financial sector as guarantee for the debt financing.
- Legal aspects of procurement agreements and sales agreements.
- Preparing technical reports as may be required by the Senior Technical Advisor.
- Carrying out other duties as may be requested by the Senior Technical Advisor.

### **Qualifications**

A university degree in law, preferably with focus on the legal aspects of international commercial operations. Five years of working experience in a senior legal position in a commercial, private production/trading company. Prior experience of working in horticultural sector operations is an added advantage.

## **BUSINESS DEVELOPMENT ADVISOR**

The Business Development Advisor (BDA) will be directly responsible to the Executive Director and the Senior Technical Advisor/Deputy Executive Director.

### **Duties and Responsibilities**

The BDA's duties and responsibilities include:

- Developing business plans for contract farmers in close collaboration with FA's Value Chain and Marketing Managers.
- Developing business plans for farmers financing their own orchard development using their own funds and debt financing, but having a forward contract with FA.
- Assisting in preparation and regular updating of FA's Business Plan.
- Assisting each FA department to update their respective business plans.
- Preparing technical reports as may be required by the Senior Technical Advisor.
- Carrying out other duties as may be requested by the Senior Technical Advisor.

### **Qualifications:**

The position requires a person with a strong commercial orientation, with a university degree in finance, economics, agriculture economics or other relevant field. Working experience from similar positions in private agro-companies would be an added advantage.





**ANNEX VII: Component 1: Support to Fruits and Nuts Sector**

**Draft Activity Plan for First Year**

		2010											
Sub-components	Activities	J	F	M	A	M	J	J	A	S	O	N	D
<b>A. Sub-component 1: Establishment of Fruit Armenia JSC</b>													
• <i>Pre-effectiveness Activities Leading to Establishment of FA</i>	RACP Loan Negotiations – end-August.												
	IFAD Executive Board Approval.												
	Approval by Constitutional Court of Armenia of the RACP Financing Agreement.												
	Appointment of the RACP Steering Committee by Government Decree.												
	Selection and Approval by Government Decree of the Board of Directors of Fruit Armenia.												
	Advertisement of the posts of Director and Deputy Director of Fruit Armenia.												
	Ratification of the RACP Financing Agreement by the Parliament of Armenia.												
	Approval by Government Decree of the Statutes and Shareholding Agreement of Fruit Armenia and further legal registration of the Company.												

		2011											
Sub-components	Activities	J	F	M	A	M	J	J	A	S	O	N	D
<b>A. Sub-component 1: Establishment of Fruit Armenia JSC</b>													
• <i>Pre-effectiveness Activities Leading to Establishment of FA</i>	Announcement of the Effectiveness of the IFAD RACP Loan.												
	Appointment of the Director and Deputy Director of Fruit Armenia.												
• <i>Key Head Office Activities</i>	Establishment of an appropriate Head Office for FA.												
	Recruitment of required FA staff.												
	Establishment of FA operational departments, with required written operational policies and detailed activity plans.												
	Undertaking of procurement for the initial set of agreed equipment and vehicles for FA.												
	Design of detailed, computer-based 5-year Business Plan for FA.												
	Design of appropriate framework contract suitable for FA's contract farming operations.												

## Draft Activity Plan for First Year (cont'd)

		2011												
Sub-components	Activities	J	F	M	A	M	J	J	A	S	O	N	D	
<b>A. Sub-component 1 (cont'd)</b>														
<ul style="list-style-type: none"> <li><b>Initial Contract Farmer Identification and Selection</b></li> </ul>	Organise campaigns to inform communities in programme area about the planned contract farming operations of FA.													
	Preliminary expression of interest by communities/farmers of their participation in the FA scheme.													
	Establish small offices for FA as focal points in contract farming operations in the three operational zones.													
	Evaluation by FA (ODD) for the first set of farmers for contract farming with FA.													
	Design of actual plans for orchards for each farm and cluster by FA experts.													
	Final selection of the first set of FA contract farmers, approval of the orchards designs and signing of farming contracts.													
	<ul style="list-style-type: none"> <li><b>Nursery and Orchard Establishment Activities</b></li> </ul>	Identify the site for the central nursery and satellite nurseries.												
		Draw design for the FA nurseries.												
		Finalise the list of required equipment and vehicles.												
		Undertake the procurement of the above equipment.												
		Request for quotations for initial material for nurseries and farmers' orchards.												
		Assess planting material quotations and make orders for planting material for nurseries and orchards for the first year's needs.												
		Establish the required laboratory for FA.												
Carry out land preparations on the first year's orchards, including support structures such as cement poles and wiring.														
<b>B. Sub-component 2: Promotion of Standards and Exports</b>	Plan for and carry out required irrigation development works around orchards selected for the first year's planting.													
	Prepare leaflets and other training material for FA's contract farmers on the planned orchard operations.													
	Carry out intensive training of the selected farmers of their roles, tasks and responsibilities in FA's contract farming operations.													
	<ul style="list-style-type: none"> <li><b>Support to GOA's Laboratories</b></li> </ul>	Identify, with IFAD support, an appropriate target country in the EU for Central Seed Laboratory's study tour.												
		Organise and undertake the study tour to a recognised laboratory in the EU.												
<ul style="list-style-type: none"> <li>During the study tour, identify appropriate planting material databank systems for CSL.</li> </ul>														
<ul style="list-style-type: none"> <li>Undertake the procurement of the above computer system and other laboratory equipment to be funded with support from RACP.</li> </ul>														

### Draft Activity Plan for First Year (cont'd)

		2011											
Sub-components	Activities	J	F	M	A	M	J	J	A	S	O	N	D
<b>B. Sub-component 2 (cont'd)</b>													
• <i>Export Promotion Support to Union of Exporters of Armenia (UEA)</i>	Make plans for UEA's new website design based on agreed approaches.												
	Upgrade UEA's website into an effective, internationally known and interactive export promotion tool, including a computerised Trade Information Service (TIS) function.												
	Design for export promotion purposes a new National Manual for Export of Fresh Produce.												
	Make an annual plan for market research activities for UEA and carry out the agreed research activities.												
	Make a plan for the major fruits and nuts-related marketing events for 2011 and carry out the planned activities accordingly with the RACP support.												
• <i>Training of Non-Contracted Farmers and Nurseries</i>	All training activities commence only in Programme Year 2 after the establishment of both the FA nursery and the small farm-based orchards.												

		2012											
Sub-components	Activities	J	F	M	A	M	J	J	A	S	O	N	D
<b>A. Sub-component 1: Establishment of Fruit Armenia JSC</b>													
• <i>Nursery and Orchard Establishment Activities</i>	Organise for the arrival of the first year's planting material to Armenia.												
	Organize the delivery of the received planting material to the contracted farms and FA's own nurseries.												
	Organise for the planting of the first year's contracted orchards.												