



Investing in rural people

**Republic of Turkey**

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**Göksu-Taşeli Watershed Development Project (GTWDP)**

**Final project design report**

Main report and appendices

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## Currency equivalents

Currency Unit	=Turkish Lira (TL)
US\$1.0	=2.5 TL

## Weights and measures

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

## Abbreviations and acronyms

AgroMed	Single Point of Contact Agricultural Advisory Services by TURKCELL
AKADP	Ardahan Kars Artvin Development Project
AWPBs	Annual Work Plans and Budgets
CIHEAM	International Centre for Advanced Mediterranean Agronomic Studies
CIMMYT	International Maize and Wheat Improvement Center
CLIMA	Center for Climate Risk Management
CIP	International Potato Center
CFP	Central Focal point
CPMU	Central Project Management Unit
CSF	Cold storage facilities
DBSDP	Diyarbakır Batman Siirt Development Project
DDA	District Directorate of Food Agriculture and Livestock
DLRIS	Department of Land Reclamation and Irrigation Systems
EIRR	Economic Internal Rate of Return
EU-FP	EU Framework Programs for Research and Technology
EUR	Currency code for Euros
FAO	Food and Agricultural Organization
F&V	Fruits and Vegetables
FFV	Fresh fruits and vegetables
FIM	Field Implementation Manager
FMRs	Financial Management Reports
FOs	Farmer Organizations
FSTs	Farmer Support Teams
GDAR	General Directorate of Agrarian Reform
GDARes	General Directorate of Agricultural Reserach
GDP	Gross Domestic Product
GII	Gender Inequality Index
GlobalGap	Global Good Agricultural Practices
GTWDP	Göksu Taşeli Watershed Development Project
HDI	Human Development Index
hh	Household
ICARDA	International Center for Agricultural Research in the Dry Areas
IFAD	International Fund for Agricultural development
IHDI	Inequality-adjusted Human Development Index
ILO	International Labor Organization
IPARD	Instrument for Pre-Accession in Rural Development
IPGRI	International Plant Genetic Resources Institute
ISA	International Standards on Auditing
ISKUR	Government Employment Agency
ISTA	International Seed Testing Association
ICT	Information Communication Technology
JICA	Japanese International Cooperation Agency
KM	Knowledge Management
KOP	Konya Regional Development Administration
LFP	Labor Force Participation
MAPs	Medicinal and Aromatic Plants
MAS	Marketing Advisory Services
MEVKA	Mevlana Regional Development Agency
MC	Micro-catchment

MGP	Matching Grants Program
MFAL	Ministry of Food Agriculture and Livestock
MFWA	Ministry of Forestry and Water Affairs
MRWDP	Murat River Watershed Rehabilitation Project
MICs	Middle Income Countries
MOD	Ministry of Development
MONE	Ministry of National Education
MoVs	Means of Verification
NAC	National Agricultural Census
NCCSAP	National Climate Strategy and Action Plan
NRM	Natural Resource Management
NSRD	National Strategy for Rural Development
ODA	Official Development Assistance
OECD	Organization for Economic Co-operation and Development
O&M	Operations and Management
OGM	General Directorate of Forestry
ORKÖY	Department of Forest-Village Relations
PBA	Programmatic
PDA	Provincial Directorate of Food, Agriculture and Forestry
PIM	Project Implementation Manual
PM	Project Manager
PPA	Public Procurement Authority
PPL	Public Procurement Law
PPMU	Provincial Project Management Unit
RIMs	Results and Impact Management System
SC	Steering Committee
SIGMA	Support for Improvement in Governance and Management
SIP	Strategic Investment Plan
SEDP	Sivas Erzincan Development Project
SEDI	Socio-economic Development Index
SMEs	Small and Medium Scale Enterprises
SPD	Strategic Planning Department
TARBIL	Tarımsal Bilgi Sistemi
TCA	Turkish Court of Accounts
TİKA	Turkish International Cooperation Agency
TORs	Terms of Reference
TUBİTAK	Scientific, the Technological Research Council of Turkey
TUIK	Turkish Statistical Institute
TURKVET	Turkish Veterinary Information Management System
TZOB	Union of Turkish Chambers of Agricultural Producers
UMICs	Upper Middle Income Countries
UNDP	United Nations Development Program
UNEP	United Nations Environmental Program
UNIDO	United Nations Industrial Development Organization
UPOV	International Union for the Protection of New Varieties of Plants
USD	US Dollar
WAP	Working age population
WUAs	Water Users Association
VC	Value Chain





## Map of the project area

### Turkey

### Göksu Taşeli Watershed Development Project

#### Project design



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 | 28-05-2015

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

### A. Background and Rationale

The Project area, Upper Göksu Watershed and the Taşeli Plateau, was selected by Government based on: i) poor socio-economic conditions and continuing rural outmigration; ii) its agro-ecological diversity that enables capitalizing on off-season (both early and late) crop production, particularly fruit production; and iii) its target group, which consists of productive poor that managed to move towards semi-commercial production and resist migration.

The Government of Turkey made a request to the UN International Fund for Agricultural Development (IFAD) to initiate the design of the Göksu Taşeli Watershed Development Project (GTWDP). It is expected that GTWDP will contribute to the reduction of rural poverty and regional income disparity in Turkey. This Project Design Report is a result of several missions and close contacts with the relevant agencies in the capital, Ankara, as well as contacts in the field, in the provinces of Konya and Karaman.

The Project is underpinned by a phased approach in order to foster deeper interaction and the predictability of a long-term partnership with the Government. The GTWDP would be the Phase I of a “Programmatic Approach” that would cover two consecutive PBAS cycles. The Programme would cover 9 years, with two overlapping projects of 7 years each.

The Project is consistent with the objectives of IFAD’s strategic framework, the study conducted by IFAD on Upper Middle Income Countries (UMICs) with Turkey as case study and the objectives of the various strategies and action plans of the Government. These include: the Long-term Strategy 2001-2023 aimed at eliminating disparities between rural-urban areas and across regions; the Tenth Development Plan 2014-2018 comprised of regional development policies for a more balanced distribution of welfare over the country and maximum contribution from all regions; and the Strategic Plan for Agriculture for 2013-2017. Some cross-cutting strategic goals are: i) to develop agricultural and social infrastructure services and increase the appeal of rural areas through rural development and improved welfare; ii) to provide food security and accessibility to quality agricultural products while protecting the agricultural resource base; iii) to enhance food reliability in accordance with international standards from production to consumption (‘farm-to-fork’); and iv) to increase crop production by ensuring quality through environmentally-friendly and effective production systems. The National Climate Change Strategy and Action Plan 2010-2020 (NCCSAP) identifies the strategies for the agriculture and forestry sectors for climate change adaptation (and greenhouse gasses) in vulnerable areas, such as the project area.

Turkey, an upper-middle-income country with a population of 77.7 million and a GDP of US\$820 billion is a European Union accession candidate. It is also a member of the OECD and the G20, and an increasingly important donor to bilateral Official Development Assistance (ODA). Turkey has a functioning market economy. In 2012, it had a GDP of EUR 613 billion and a GDP per capita of EUR 8,208.<sup>2</sup>The country has already adopted sound macroeconomic policies with structural reforms to reduce the role of the state and improve the business environment for private investments.

**Agriculture** is no longer Turkey’s main driver of economic growth, contributing only 9% to the country’s GDP in 2012. It is still important for rural development, employment (particularly for women), export and manufacturing. Turkey is a regional hub for the production, processing and export of foodstuffs to large European and Middle Eastern markets. Its agricultural diversity and amenable climate allow it to produce a sustainable supply chain of raw inputs for its processing industry,

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<sup>1</sup> Mission composition: Dr. Nedret Durutan, Team Leader and Agriculturalist; Amar Kaane, Marketing and Value Chain Specialist; Mr. Erkan Özçelik, Financial Analyst/Economist; Ms. Audrey Nepveu, Lead Technical Adviser, Mr. Cuneyt Okan, Rural Development Specialist; The Mission was accompanied by a MFAL team (GDAR) led by Mr. Ilker Manyaz, Foreign

<sup>2</sup> European Commission, August 2014. Instrument for Pre-accession Assistance (IPA II)

facilitating its status as a large net exporter of food and beverages. However, the sector still has serious shortcomings. Turkish agriculture has a dual face, with farmers who are: i) commercialized, use the latest technologies, have links to a wide range of domestic and international information sources, acutely aware of global trends and consumer preferences, interested in innovations and fully integrated into national and international markets; and ii) resource poor, engaged in subsistent or semi-subsistent farming, conservative, and do not consider farming as a business.

**Poverty** has declined in Turkey. In the last decade alone, the poverty rate was halved, from 44% in 2002 to 21% in 2011. However, regional income disparities still remain. Imbalances persist in socio-economic structure and income levels across both rural and urban settlements and across regions in the country. Turkey's nominal 2013 Human Development Index (HDI) of 0.759 exceeds the average of 0.738 for other countries in Europe and Central Asia. Turkey's performance is also above the average of 0.735 for countries in the high human development category, and it ranks 69 out of 187 countries and territories. The country's Inequality-adjusted Human Development Index (IHDI) is about 15.8% lower than its nominal 2013 HDI. This underlines the inequality in the distribution of achievements across the society including regional disparities. Moreover, according to the Gender Inequality Index 2013 (GII), Turkey has a value of 0.36, and ranks 69 out of 149 countries. On the other hand, according to the Global Gender Gap Index 2013, the country ranks last among the European Union countries. When these two indicators are considered, it is evident that Turkish women still experience inequalities. This is less than half the OECD average of 65% and below many OECD members and developing countries worldwide. The rural population is decreasing, from 23.3% in 2011 to 8.25% in 2014<sup>3</sup>. The drivers of inter- and intra-regional migration from rural to urban areas include: human resource-related issues (low levels of education and few skills), ineffective institutional structures including farmer organizations (cooperatives, producer unions, etc.) needed to support rural development, highly scattered settlement patterns in some regions, insufficient investments to develop and maintain physical, social and cultural infrastructure, high rate of hidden unemployment, insufficient diversification of agricultural and non-agricultural income-generating activities resulting in low incomes and relatively low quality of life for the rural population. The rural labour force is predominantly employed in the agriculture sector with a share of around 61%.

Women have always played a vital role in Turkish agriculture, which is the largest employer of women in rural areas. The 2014 statistics indicate that women's labor force participation rate (aged 15 years and over) is an estimated 30%. Women make up 44% of the agricultural labor force.

**Project Beneficiaries** are 32,098 households living in 212 villages with a total population of 118,800. The majority is engaged in fruit and field crop production on 166,536 hectares (of which only 15% is irrigated), and in keeping small flocks of small ruminants. In addition, the project would benefit around 120 nomadic households living on rangelands in the project area. Their main livelihood is small ruminant production and small scale milk processing for household needs and sale of surplus.

The GTWDP's target group is made of productive poor households (women and men) with a potentially adequate asset base that enables them to be engaged in mixed farming, with a focus on crop production. Average household size is 3.7. These households are semi-commercial; some have established links with the markets, while others' engagement with the market is "hit or miss" in nature. They cultivate an average of 3.5 hectares of cropland that are fragmented, and keep mostly goats (30-50 heads). The cultivated land is either: i) totally rainfed (most prevalent); or ii) mostly rainfed with some irrigated patches according to water availability and individual investment capacity. The target group suffers from production fragmentation and poor organizational capabilities. This results in a failure to combine forces to provide products of sufficient volume and consistent quality to satisfy the large-scale buyers' expectations. Furthermore, other main constraints are the lack of training on modern techniques for upstream production and post-harvest handling, and insufficient marketing towards downstream systems and consumers.

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<sup>3</sup> <http://www.nufusu.com>

## **B. Development Objective and Outcomes and Indicators**

The overall Goal of the GTWDP, as phase one of a two-Project Program, is to reduce rural poverty by supporting economic diversification through value chain development and sustainable natural resource management. The Project Development Objective is to increase farmers' income from improved agricultural production and marketing activities in the targeted area with strengthened resilience to climate shocks. The Project would also contribute to improving the standards of living of the nomadic Yörük tribes in the highlands of the Taurus Mountains, through capacity building that would assist them to organize for improved management of the common natural resources.

The project outcomes would include: i) sustainably increased farm productivity; ii) higher product prices received by smallholder producer and iii) sustainable increase of soil water moisture.. (See Logical Framework for more details).

The GTWDP would be implemented in selected villages of 11 districts of Konya and Karaman provinces of Central Anatolia. These districts are located in the Göksu sub-catchment, one of the four in the East Mediterranean Watershed. The Project area includes 212 villages that are situated in the mountainous parts of the 11 districts where the elevation varies between 600 m and 1 800 m.

Each component would focus on elements of the identified value chains (VCs). However, the components and their subcomponents are intricately woven with intrinsic complementarities so as to maximize the impact of each. Thus no specific balance is contemplated as regards the available resources for any single one, but rather all individual interventions have been designed to multiply impact when used in any combination. Within this framework, the GTWDP would include three components namely: i) Agricultural Productivity and Natural Resource Management; ii) Market Access Enhancement; and iii) Project Management.

The components, respectively, have been designed to: i) improve access to effective technical advisory services, new knowledge and skills - particularly in farming as a business, modern inputs, and matching grants to improve adoption of new technologies, including solar energy; ii) build capacity for accessing early warning data through investments and training, while prompting the wider adoption of climate-smart technologies through investments in efficient irrigation and water harvesting, as well as improving land management in the rangelands and marginal agricultural land through investments in terracing; and iii) enhance the producers capacity to voluntarily organize to better interpret and respond to market signals.

## **C. Project Implementation**

The Implementing Agency of the project would be the Ministry of Food Agriculture and Livestock (MFAL) located in Ankara. The overall management responsibility would rest with the General Directorate of Agrarian Reform (GDAR of MFAL) in Ankara where a Central Project Management Unit (CPMU) would be established. The responsibility for field implementation would lie with the Provincial Directorates of Konya and Karaman for the respective implementations in these provinces.

Two Provincial Project Management Units (PPMUs) would be embedded in the Provincial Directorates of MFAL (PDA) in Konya and Karaman, and would be charged with the day-to-day field management and implementation of the Project. All staff of the CPMU and the two PPMUs would be seconded from the cadres of MFAL. Eight multi-disciplinary Farmer Support Teams (FSTs), each one comprising specialists for field crop production, horticultural production and agricultural economics, where one would be female and would be assigned by the PDA to the PPMUs to carry out extension services and maintain frequent contact with the beneficiaries as required by the GTWDP design. Each team will be responsible for one or more districts identified based on their number of villages and the proximity of those to each other and the district centers.

Several government agencies are active in the project area. Close collaboration and coordination will be sought with the following that are directly related to the objectives of the project and would complement its rural poverty reduction and marketing enhancement initiatives: i) the Konya Regional Development Administration (KOP); ii) the Regional Directorate of Forestry of the MFWA; iii) the

Greater Metropolitan Municipality of Konya; iv) the Governors' Offices of Konya and Karaman as Turkish Employment Agency (İŞKUR) and Ministry of National Education (MONE); v) the Mevlana Development Agency (MEVKA); vi) Agency for Small and Medium-scale Enterprises (KOSGEB), vii) DGRV viii) IPARD Local Offices in Konya and Karaman; and ix) the provincial Chambers of Agriculture and of Trade and Industry.

## **E. Project Costs, Financing, and Benefits**

The Project is forecast to total USD 25 million of which USD 16.53 million (or 71% of the total) will go to finance Component 1: Improved Agricultural Productivity and Natural Resource Management, USD 4.62 million (or 20% of the total) to finance Component 2: Market Access Enhancement & Value Chain Development and USD 1.97 million (or 9%) for Component 3: Project Management Unit.

The Government will forego on taxes and duties related to any programme-related inputs that involve external sources of financing associated with IFAD financing. Any future changes in the rates and/or structure of taxes and duties would have to apply to the Programme.

The total investment and incremental recurrent project costs, including physical and price contingencies, are estimated at USD 25 million (TL 71.25 million) over a seven-year period from 2016 to 2022. IFAD financing would comprise a loan amounting to USD 17.89 million, as well as USD 400,000 in grant funding from IFAD, contributions from the Government in the form of USD 3.24 million from its budget and USD 0.608 million from foregone taxes. A beneficiary contribution of USD 2.85 million is envisaged. Beneficiary funding will cover counterpart contributions towards grant funding from Component 1 and 2.

## **F. Economic Analysis**

The overall project analysis suggests an EIRR of 17% over twenty years. The gross value of production forecast shows an increase of approximately 50% from the 'without the project' situation, while outflows are mere 30% or so, including labour. In addition to the quantified benefits described above, the GTWDP is expected to generate a number of benefits that would be difficult to evaluate in monetary terms.

The project's contribution to economic welfare is derived from: increased quantity and quality of market-oriented production, better market access, and higher prices due to branding and employment resulting from the investments along the value chains. It is difficult to quantify and estimate the net benefits from reduced water use through drip irrigation, climate change resilience, natural resource rehabilitation, intensification and diversification of farming systems, and employment generation.

## **G. Sustainability**

The project is designed to ensure that the producers sustainably access markets by integrating into existing and new value chains while maintaining focus on good agricultural practices and NRM. These include enhancing the quantity and quality of the crops in the area as well as providing assistance for modern marketing (including branding) and market information services. The introduction of farming as a business for the producers would result in optimization of the land, water and labour resources available in the project area, both individually and collectively. Strengthening farmer organizations through training and capacity building would enable longer-term and more stable contractual relationships with collectors, processors, exporters, etc. These factors are expected to last beyond the 7-year project period. The partnership between the producer groups and the private sector would be strengthened also as a result of improved knowledge management.

In addition, the project, through the provision of business advisory services, would expand the farmer outreach to a variety of support and investment programs that are in place, financed from the national budget, EU grants, and other sources.

## Logical Framework

Narrative Summary	Key Performance Indicators <sup>4</sup>	Means of Verification	Assumptions (A) / Risks (R)
<p><b>Goal:</b> Reduced rural poverty by supporting economic diversification.</p>	<ul style="list-style-type: none"> <li>▪ 32,000 households in targeted areas report increased income by 20%</li> <li>▪ 32,000 households in targeted areas report improvement in assets ownership index by 20% (RIMS level 3)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Baseline and completion survey</li> <li>▪ State Statistical Committee</li> <li>▪ Government statistics</li> <li>▪ UNDP/WB reports</li> </ul>	<ul style="list-style-type: none"> <li>▪ Stable macroeconomic atmosphere (A)</li> <li>▪ Poverty reduction remains priority agenda</li> </ul>
<p><b>Project Development Objective:</b></p>			
<p>Increased farmers' income from improved agricultural production and marketing activities in targeted areas with strengthened resilience to climate shocks</p>	<ul style="list-style-type: none"> <li>▪ Farmers in targeted areas report increased net farm income through improved access to productive infrastructure, financial services and markets by 20%</li> </ul>	<ul style="list-style-type: none"> <li>▪ Baseline &amp; completion survey</li> <li>▪ Government statistics and TARBIL monitoring</li> <li>▪ Interviews/focus groups</li> </ul>	<ul style="list-style-type: none"> <li>▪ Programme outcomes stimulate economic growth (A)</li> <li>▪ Competition weakens robustness of markets (R)</li> </ul>
<p><b>Component 1: Agricultural Productivity and Natural Resource Management</b></p>			
<p><b>Outcome 1:</b> Farm productivity sustainably increased</p>	<ul style="list-style-type: none"> <li>• 8,000 small producers in targeted areas report improved productivity by 20%</li> </ul>	<ul style="list-style-type: none"> <li>▪ Baseline and completion survey</li> <li>▪ Programme M&amp;E system</li> <li>▪ MTR</li> <li>▪ MFAL surveys and reports</li> <li>▪ TARBIL monitoring</li> </ul>	<ul style="list-style-type: none"> <li>▪ Climate change is in line with current predictions</li> <li>▪ Availability of qualified service providers for group facilitation, training and extension activities (A)</li> <li>▪ Farmers are willing to invest in development of the farm production capability (A)</li> </ul>

<sup>4</sup> The final targets will be validated at base line to be conducted in year one and will be disaggregated by gender. A detailed list of output indicators is given in **Appendix 6**.

Narrative Summary	Key Performance Indicators <sup>4</sup>	Means of Verification	Assumptions (A) / Risks (R)
<b>Component 2: Market Access Enhancement</b>			
<p><b>Outcome 2:</b> Smallholder producers receive higher product prices</p>	<ul style="list-style-type: none"> <li>• Farm gate product value in the selected Value Chains increase by 30%</li> <li>• Post-harvest losses reduced by 20 % for smallholders producers</li> </ul>	<ul style="list-style-type: none"> <li>• Baseline survey, mid-term and completion reports</li> <li>• MFAL surveys and reports</li> <li>• Records of wholesale and retail markets</li> <li>• Focus groups/interviews</li> <li>• TARBIL monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Competitiveness of local products are maintained (R)</li> <li>• Continuity of MFAL staff (R)</li> </ul>
<p><b>Outcome 3: Sustainable increase of soil water moisture</b></p>	<ul style="list-style-type: none"> <li>• 25% increase in soil moisture is reported.</li> </ul>	<ul style="list-style-type: none"> <li>• Soil testing study</li> </ul>	<ul style="list-style-type: none"> <li>• Climate conditions are favourable.</li> </ul>



## I. Strategic context and rationale

### A. Country and rural development context

1. Turkey is an upper-middle-income country with a population of 77.7 million with an annual GDP of US\$ 820 billion<sup>5</sup> and is a European Union accession candidate. It is a member of the OECD and is chairing the G20 in 2015. As an increasingly important donor to bilateral Official Development Assistance (ODA), Turkey has a functioning market economy. In 2012, it had a GDP of EUR 613 billion and a GDP per capita of EUR 8,208.<sup>6</sup>

2. After the 2008 crisis, Turkey rebounded in 2010–11, however, economic growth has moderated, with rising concerns over persistent external imbalances and in 2014, growth has lost momentum. Policies to hold back domestic demand in the face of a large current account deficit increased volatility in capital flows, and political uncertainties led to a sharp deceleration in private consumption and investment. This was offset to some extent by a pick-up in exports. In the context of serious regional geopolitical tensions and the sluggish recovery in Europe, exports are projected to be subdued and GDP growth to be relatively weak by Turkish standards, at 3¼ per cent in 2015 and 4% in 2016. The current account deficit is set to stay above 5% of GDP, and large short-term foreign debt refinancing needs make Turkey vulnerable to shifts in international investor sentiments<sup>7</sup>. Because of the sizable adjustment in the current account deficit, Turkey's total external financing requirement over the next 12 months eased to \$210 billion (24 percent of estimated GDP) 3.

3. The country has already complemented sound macroeconomic policies with structural reforms to reduce the role of the state and improve the business environment for private investments. Between 2002 and 2007, private investment was one of the main growth drivers contributing to around half of the average annual growth rate during this period. However, since 2012, private investment has been subdued. This has constrained growth, and persistent investment weakness could weigh down on the economy's potential.

4. A major medium-term challenge for Turkey is to boost the participation of its youth and women in the labour force as noted in the G20 leadership objectives<sup>8</sup>. Despite notable success in job creation in recent years, almost half of the Turkish working-age population (WAP) does not enter the labour market, mostly due to the low labour force participation (LFP) rate of women, which is around 30%, less than half the OECD average of 65%. Labour market rigidity and high costs constrain job creation and arguably contribute to informality, which remains high in Turkey despite its decline over the past decade. The Government has prioritized job creation in the recent Tenth Development Plan (2014-2018), especially among women and youth, and has recently approved the National Employment Strategy (2014-2023).<sup>1</sup> In 2014, despite strong job creation, unemployment increased as the labour force expanded rapidly. The sharp increase in the labour force reflects both demographic change and increases in labour force participation among women, both of which are expected to continue and contribute to raising Turkey's growth potential over the medium term.

5. Poverty is decreasing. With rapid economic growth after the domestic 2001 crisis, Turkey's social outcomes have improved. Poverty decreased from 44% in 2002 to 21% in 2012. On the other hand, the latest Poverty Study by TÜİK (2014) regarding the current purchasing power parity indicates 2013 ratios for the poor, both in urban and rural areas, based on two different poverty lines for: i) poor in urban areas: 0.64% based on \$4.3-a-day poverty line, and 0.02% based on \$2.15-a-day poverty line, and ii) poor in rural areas: 5.13% based on \$4.3-a-day poverty line and 0.13 % based on \$2.15-a-day poverty line.

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<sup>5</sup> World Bank, October 2014. Turkey Country Program Snapshot.

<sup>6</sup> European Commission, August 2014. Instrument for Pre-accession Assistance (IPA II)

<sup>7</sup> OECD November 2014. Turkey Economic Forecast Summary

<sup>8</sup> G20 Agricultural Ministerial Meeting Final Communiqué, 2015

6. Regional income disparities remain. The imbalances in socio-economic structure and income levels across both rural and urban settlements and across regions in the country persist. Since 2000s, the regional development policy in Turkey is transforming to include enhancing competitiveness of regions and strengthening economic and social cohesion in addition to reducing disparities. The 10th Development Plan (2012-2015), among others, aims at reducing regional and urban-rural disparities. According to the Plan, public investments will continue to be directed towards areas that target reducing regional development disparities and utilizing the potential for regional development.

7. Gender. According to the Gender Inequality Index 2013 (GII), Turkey has a value of 0.36, ranking 69 out of 149 countries. On the other hand, according to the Global Gender Gap Index 2013, the country is again the last among the European Union countries. When these two indicators are considered, it is obvious that Turkish women still experience inequalities. Women's participation in the labour force is at around only 25.4%<sup>9</sup>, which puts the country below all other OECD members and many developing countries worldwide. These rankings are driven by the considerable gender disparity in Turkey with respect to "economic participation and opportunity" and "political empowerment". Post crisis dynamism (after early 2000s) has drawn a growing number of Turkish women into labor force. After several decades during which the labor force participation of women was declining, as families moved from rural to urban areas and farm workers became housewives, female employment has been perking up since the late 2000s. Younger and better educated cohorts of women benefit from improved employment prospects in Turkey's growing services sector and employment rates have also risen among middle-aged women as falling family sizes and improved household amenities create opportunities for them to return to the labour market<sup>10</sup>. Since 2010, amendments were made in laws regarding civil servants and labour with the goal of increasing the number of women in the workforce through strategies to help balance work and family life. The discrepancies between standards for female workers and civil servants (as in the duration of paid maternity leave) were removed. On the other hand, the situation of women in the fields of health and education has been rapidly improving. Turkey's Industrial Strategy 2011-2014 and Small and Medium Enterprise Strategy 2011-2022 are also geared to support greater female employment. Women's participation in political decision-making, while improving, remains limited with 14.4% of the Parliament members being female. Women are also not well represented in high-level positions at universities and in the civil service in general. While female academics are fairly well represented in Turkey at about 41%, men typically hold the higher-level positions at universities<sup>11</sup>.

8. The design of the GTWDP is fully in line with existing plans and programs of Turkey regarding the role of women in agriculture. Women have always played a vital role in Turkish agriculture, which is the largest employer of women in rural areas. The 2014 statistics indicate that women's labor force participation rate (aged 15 years and over) is an estimated 30%. Women make up 44% of the agricultural labor force.

9. The World Bank supported the Agricultural Extension and Applied Research Project in 1992 that initiated pilot extension programs specifically for rural women. In 1997, the "Department of Women in Rural Development" was established in the ex-Ministry of Agriculture and Rural Affairs (now MFAL) to develop extension and education programs women farmers. The programs are carried out in nationwide where topics include both commercial agricultural production (dairy, greenhouse and horticultural production, organic agriculture, apiculture, etc.) as well as home economics (nutrition, preservation of food, canning, drying, general food and milk hygiene etc.)

10. Since 2008, a series of Regional Women's Workshops were conducted in nine agricultural regions and action plans prepared to improve the effectiveness of women programs on poverty, education, agricultural production, entrepreneurship and business, sustainable use of natural resources, farmer organizations and social security. The last workshop was conducted in Konya in 2011. Within the framework of action plans, MFAL is collaborating with Ministry of Family and Social

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<sup>9</sup> TUIK 2014. Newsletter No.16007. 2014 Household Labour Survey

<sup>10</sup> World Bank December 2014. Report No.90509-TR: Turkey's Transitions

<sup>11</sup> World Bank 2012. Towards Gender Equality in Turkey

Policies, Union of Chamber of Agricultural Producers (TZOB), KOSGEB (Agency for Small and Medium Scale Enterprises) and ISKUR (Agency for Employment) providing training courses on agriculture and livestock as well as gender equality, individual rights and freedom, collective action (cooperatives), entrepreneurship, climate change.

11. MFAL had been organizing provincial and national Women Farmers Knowledge Competition since 2004 that was very popular nationwide. In 2004, the format of the competition has been revised and it became “Knowledge and Project Competition” where projects developed and implemented by women farmers were evaluated and rewarded.” In 2015, 407 projects developed by 407 women finalist projects are being evaluated for financial support. Within the framework of MFAL and DGRV (German Cooperative and Raiffeisen Confederation), members of 67 women cooperatives were trained on “entrepreneurial cooperative movement”.

12. **Rural population decreasing.** The rural population started to decrease in 1980 and reached 23.3% in 2011 and 8.25% in 2014<sup>12</sup>. The major reason for such a sharp reduction is the new Metropolitan Law enacted in 2012. Thirteen city municipalities were reclassified as “greater metropolitan municipalities” where the boundaries of municipalities became the borders of the respective provinces. About 16.000 villages and towns lost their legal standing as separate entities and have become neighborhoods within the greater metropolitan borders.

13. The Tenth National Development Plan (2014-2018) underlines that the risks associated with overall population decline and aging have been increasing in rural areas, where there is significant divergence between remote and integrated areas in terms of their proximity to urban areas and cities. This points the need for an enrichment of policies and implementation approaches for rural areas and the development of an approach that does not limit policy design and implementation to *only* villages and their attached settlements. The Plan also underlines the importance of improving the living and working conditions of the rural society in their own habitat.

14. **Problems of rural areas are multi-faceted and persistent** particularly in less developed regions despite some improvements. These include problems of human resources (poor level of education and low skills), ineffective institutional structures including farmer organizations (cooperatives, producer unions etc.) needed to support rural development, highly scattered settlement patterns in some regions, insufficient investments to develop and maintain physical, social and cultural infrastructure, high rate of hidden unemployment, insufficient diversification of agricultural and non-agricultural income generating activities resulting in low incomes and relatively low quality of life for rural population. This triggers inter- and intra-regional migration from rural to urban areas.<sup>5</sup> The National Strategy for Rural Development (2014-2028) (NSRD) envisages the development of rural economy and improving employment opportunities. In order to achieve this, the Strategy particularly emphasizes that the farmer organizations, technology and innovations, agricultural extension, land consolidation, agro industry in rural areas, diversification of rural income and training of women and youth for micro-businesses.<sup>13</sup>

15. **Government’s social assistance** for those officially classified as poor is extensive, covering/ both the urban and the rural. Assistance<sup>14</sup> ranges from food aid to providing shelter and heating, and from financial aid to free health care and education. The Program is based on the Social Assistance and Solidarity Law No. 3294 that provides a variety of assistance (in kind and in cash) to those that are needy. According to the Law, beneficiaries are eligible to most social assistance programs if they are not registered in the social security system and live in household with a per-capita income below one third of the net minimum wage (one-third currently being about 280 TL/capita/month). Beneficiary applications are screened by a local committee (chaired by district governor, representatives of six government agencies, 2 village headmen, representatives of NGOs and 2 benevolent individuals) and

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<sup>12</sup> <http://www.nufusu.com>

<sup>13</sup> IFAD May 2014. Engagement of IFAD in MICs: Turkey Case Study

<sup>14</sup> SOCIAL EXPENDITURES AT DIFFERENT LEVELS OF GOVERNMENT: TURKEY (Background Study World Bank Social Policy Work)

based on a set of criteria. Reality checks are made through SOYBIS (Social Assistance Information System that allow to check 22 parameters) and also visiting the villages to confirm the poverty status of the applicants. The communities, through the *muhtars*, also inform the authorities about the status of households or individuals who are in capable of such applications.

16. According to the 2013 Activity Report of the Ministry of Family and Social Policy, about 17.5% of the total population benefits from these programs where the allocation from the national in 2015 is 32 billion TL (about USD11 billion).

17. **Rural labour** is predominantly employed in the agriculture sector. Between 2007-2012, the share of agriculture in rural employment was around 61%. While non- agricultural employment increased by 600,000, agricultural employment increased by 1.1 million in rural areas. During this period, despite this rise in agricultural employment, rural poverty remained significant mainly due to the fact that agricultural employment is largely in very small farming enterprises that suffer from underemployment<sup>15</sup>.

18. **Agriculture is no longer the main driver of the economic growth.** The agricultural sector that had traditionally been seen as the major contributor to the country's GDP provided only 9% of the GDP in 2012. Although this displaced the sector from being the main driver of economic growth, it still maintains its importance in rural development, employment (particularly for women), export and manufacturing sector. Turkey currently has become a regional hub for the production, processing and export of foodstuffs to large European and Middle Eastern markets<sup>16</sup>. Its agricultural diversity and amenable climate allow it to produce a sustainable supply chain of raw inputs for its processing industry, facilitating its status as a major exporter of food and beverages. Nevertheless, the sector still has serious shortcomings where the sector has a dual faceted with farmers who are:

- a) commercialized, use the latest technologies, have links with a wide range of domestic and international information sources are acutely aware of global trends and consumers' preferences, interested in innovations and fully integrated into national and international markets; or
- b) resource poor, engaged in subsistent or semi-subsistent farming, conservative, do not consider nore no farming as a business.

19. It is estimated that 1/3 of the farmers who are registered in the National Farmer Registry System are in the first segment and concentrated mostly in the Marmara, Aegean and partly in Mediterranean, Central and South Eastern Anatolia. The second segment concentrated in regions and areas that have limited agricultural resource base and are relatively disadvantaged in terms of climate and affected by rough topography (mountainous). This segment struggles with small farm sizes, fragmented land and consequent lack of economies of scale with out-dated production techniques. Low productivity and poor quality prevents them from integrated into the value chains and markets. Furthermore, these factors make them less resilient to more vulnerable to unfavorable weather conditions and climate change.

20. **Horticultural production is the leading sector of Turkish agriculture.** The country is the World's third largest exporter of fruits and vegetables, after the United States and the EU. Since late '90's, developing retail chains have triggered the growing of the processing industry as well as export possibilities where the number of greenhouses and vegetable production have shown a rapid increase. The total annual fresh fruit and vegetable (FFV) production is 46 million tons: 17 million tons fruits and 29 million tons vegetables<sup>17</sup>. The major problems of the sector are: i) production on small land parcels resulting in small volumes with variable quality, ii) low capacity utilization and partial use of modern enterprises due to seasonality as well as locality of production, iii) poor farmer awareness about good agricultural practices (GlobalGAP), quality standards and certification, iv) marketing such as poor information channels and inconsistent quality, and v) lack of branding.

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<sup>15</sup> Engament of IFAD in MICs: Turkey Case Study

<sup>16</sup> pwc, 2012. Turkey in 2041: Looking to the future

<sup>17</sup> TUIK, December 2014 Newsletter No. 1620 Crop Production

21. The volume of fresh fruit and vegetable (FFV) exports amounted 774.407 tons and 1.1 million tons, respectively in 2014<sup>18</sup>. According to TUIK<sup>19</sup>, about 4% of the fresh vegetables and 4.5% of the fruits production are exported. The remaining is sold in the domestic market as fresh and processed produce. The basis of the FFV marketing system has been the "wholesale market" where the brokers and merchants play an important role. The Government Decree No. 552 (the "Halles" law) aims is to sustain free competition for FFV trade and strictly forbids wholesale and purchase of FFV anywhere other than wholesale market halls. However, legislation also includes some balanced regulations (exceptions) related to mandatory wholesaling at the hall: producers can retail their produce at producer markets directly to consumers provided they do not exceed the amounts already pre-determined by a municipality.

22. **Seed/seedling production sector.** The country produces about 700.000 tons of seed for 70 crop species by both private and public sectors, private being the major source. All of the certified seed need for registered field crop varieties is met domestically while the ratio is only 35% for the hybrid vegetables. There are about 600 seed private companies that provide 65% of the required quantities<sup>20</sup>. In vegetable and strawberry seedling production sector, 110 registered companies operate. The country annually produces 70 million certified grafted seedlings and about 100 million rootstocks and exports large quantities. There is state support for both the certified seed/seedling producers who are members of Seed and Seedling Producers' Associations and for the farmers who produce with such plant material. The variety and seed certification has been harmonized with rules of the International Union for the Protection of New Varieties of Plants (UPOV), International Seed Testing Association (ISTA) and OECD Seed Schemes.

23. **Most of the farmers reach the wholesalers through brokers (commissioners).** These service providers are: i) specialized in consolidating small and heterogeneous volumes of fresh produce that fit in with wholesalers demand, ii) experienced, with marketing skills that allow them to clear out the market at free market prices for the producer, ii) providers of short-term finance as credit (advance payment) to cover the producers' variable costs<sup>21</sup>. Another important service is the brokers' capability to arrange all starting at farm gate and covering /transport/loading/unloading etc. From a legal standpoint, there has been a considerable effort to achieve a balance between the producers, brokers, and merchants/wholesalers. However, the interests of the producers are not being sufficiently protected within the current wholesale market system mainly because producers have not been able to organize themselves. Weak bargaining power and market failures in the output markets are common problems faced by small- scale farmers. Small volumes of varying quality to be sold through a limited number of intermediaries result in individual farmers having little if any bargaining power that becomes more challenged when dealing with fresh produce that is prone to quick spoiling thus loss, owing to high intermediary and transaction costs and lack of farmer organizations.

24. **Farmers' organizations (FOs) are generally weak and their participation in agricultural policy-making is limited.** Three types of organizations exist in the agricultural sector: i) agricultural producer associations (about 200,000 members under 6 thematic categories), ii) chambers of agricultural producers (under the union umbrella of TZOB with 5.4 million members) and iii) cooperatives (about 4.5 million members). Such variety of organizations with different legal basis mandates roles and responsibilities present a significant bottleneck for the development of independent, non-governmental, membership-based rural organizations. For almost a century, the state has maintained a paternalistic role for FOs. This tradition delayed the development of the FOs to become mature entities responsible for their operations, failures and successes. Those that survived or *preferred* to exist under the wings of the state have also created significant financial burden on the state budget, strained the judicial system and kindled social problems within time. Those few that relieved themselves of such coddling were able to develop into autonomous and democratic

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<sup>18</sup> <http://www.virtualmarket.fruitlogistica.com/en/Fruit-Vegetable-Exports-Of-Turkey>

<sup>19</sup> TUIK: Turkish Statistical Institute

<sup>20</sup> TOBB 2013. Turkey Agricultural Sector Report.

<sup>21</sup> Yılmaz S. and I. Yılmaz, 2008. Evaluation of the wholesale market system for FFV: a case study from Antalya Metropolitan Municipality. New Zealand Journal of Crop and Horticultural Science, 2008, Vol. 36

organizations of economically empowered members by raising incomes and creating employment. Having met their members' social and cultural needs, these FOs have given their members faith in the future<sup>22</sup>. While there are few top-class organizations, in general the majority of the existing organizations suffer from: i) poor management/governance; ii) lack of training and awareness; iii) weak financial status and meager financial management capacity, iv) poor, if not total lack of, cooperation among cooperatives resulting in weak umbrella organizations, and iv) limited cohesion within the cooperatives often leading to conflicts among members.

25. **Agricultural Research and innovation.** Agricultural research in Turkey is carried out by: the General Directorate of Agricultural Research (GDARes) under MFAL, universities and the Scientific, the Technological Research Council of Turkey (TUBITAK) and the Ministry of Development (MoD).

26. GDARes and the research funds of universities and TUBITAK both financially and administratively support the research projects. TUBITAK, MoD, some agro- industry companies, and international bodies, such as CIMMYT, ICARDA, CIHEAM, FAO, IPGRI, CLIMA, CIP, UNDP, UNIDO, EU-FP and UNEP are the other important supporters of research. The Government takes on a strong role in innovation processes, but much more through a governing, supporting and facilitating function than as an overall coordinator. All stakeholders play their designated roles in innovation processes, but no institution has a mandate for overall coordination, and such a mandate does not appear to be felt as obviously lacking in the system. Public Private Partnership (PPP) works fairly well, research facilities and personnel are made available free of cost (except operational costs) for research projects by private sector stakeholders. This linkage and partnership help accelerate innovation process. The GDARes adopted a multi-disciplinary approach since 1996, and the funds are allocated based on prioritized "*areas of research opportunity and research programs.*" The system shifted from "government and project pushed" approach to "pulled by farmer" approach. Research proposals go through a successive review process before receiving funds. Currently, there are 60 research institutes (central, regional, and thematic) under GDARes where 2200 staff work out of which 24% with BSc, 56% with MSc, 19% with PhD and about 1% with the title of associated professor<sup>23</sup>. Female scientists comprise 37% of total research staff. About 1200 projects are implemented annually with a budget of around US\$ 81million (excluding revolving budget and staff salaries).

27. **Agricultural advisory services.** There is diversity in extension provision: i) public (mainly MFAL, and Ministry of Forestry and Water Affairs for forest villages) and academia and ii) private sector (private advisors, input suppliers, NGOs, agro processing companies, private TV channels, GSM operators). Agricultural extension is an integral part of the structures of the MFAL i.e. government-funded and -provided. MFAL advisory structures operate at all levels: in provinces, districts and villages. There is 11.063 and 18.828 technical staff working at provincial and district directorates, respectively. The ratio of the female staff is 26% for provinces and 23% for districts. Technical staff comprises of: i) agricultural engineers and technicians (65% of the total field staff), and ii) veterinarians and animal health technicians (35% of the total field staff). In 2007, MFAL also launched the TARGEL Project. It was originally based on performance-based system contracting graduates (mostly new graduates) from agricultural and veterinary faculties at village level to provide extension advice to the farmers in a defined area. The system envisaged at least 1-2 agriculturist or veterinarian responsible for 3-10 villages (about 50.000 ha land registered in the National Farmer Registry system and 10.000 livestock registered in TURKVET system). Today there are about 10.000 TARGEL staff, however, it has not been working efficiently as envisaged mainly due to; ii) insufficient if not lack of necessary working infrastructure (office space, vehicles) in the villages; ii) unsolved social problems (fragmented families due to poor living conditions and insufficient education facilities for their children in the villages). Currently, most of such personnel are stationed at the district centers and commuting to the villages and their status (contracted) is converted to standard public employee. Currently, the TARGEL personnel equipped with mobile touch-screen pads visiting every farmer in the

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<sup>22</sup> FAO Policy Studies on Rural Transition, 2013. An Overview of Cooperatives in Turkey.

<sup>23</sup> GDAR Mart 2015.

Farmer Registry System on-farm for ground-truthing and filling information gaps regarding assets, crops, households data, etc. needed to update National Agricultural Census (NAC).

28. MFAL took the initiative to move to a more pluralistic extension system, Private Advisory Service (PAS) provision in 2006. The PAS is supported with considerable financial support by the Government for capacity development (certification program) and subsidized service provision e.g. a private advisor who works in organic farming area is allowed to contract with maximum 50 farmers who have at least 50 da of land each. Although there is no hard data observations indicate that except the Western part of the country, public extension remains as the major source.

29. Major issues regarding the public extension are the following: i) the current system is functioning in an awkward way; the experienced staff are mostly engaged in the agricultural subsidy bureaucracy that keep them in the office while the inexperienced TARGEL personnel is in direct contact with the farming community in the villages as the cutting edge; ii) the extension workers have a high level of academic training in agriculture (primarily agronomist, veterinarians, zoo-technicians) however have inadequate formation regarding communication, community mobilization, participation, partnership facilitation that would help them to deal with the complexity of rural development programming; iii) overlooking the need for change from a process of technology transfer (research institution to farmer) to a process of facilitating a wide range of communication, information, and advocacy services (demand-driven, pluralistic and decentralized extension), iv) conducting no impact study that would help the MFAL re-orient and/or improve extension management by measuring the relevancy, reliability, timely accessibility and cost of advice and efficiency and effectiveness of its services.

30. **Climate Change.** Turkey is one of the countries in the Mediterranean Basin that could be profoundly affected by the climate change. A number of studies point to: i) temperature increases everywhere in all seasons, but the increases are larger in summer than winter; ii) decreases in annual precipitation amounts in southern parts of Turkey, and possible slight increases in the northeast; iii) more intense precipitation events, increasing the risks of fluvial and pluvial flooding, together with landslides; iv) increased intensity and duration of droughts and hot spells leading to increased water stress and rising sea levels, increasing the risks of flooding in low-lying areas of river deltas and coastal cities<sup>24</sup>.

31. The recently experienced severe drought conditions in many parts of the country suggest that Turkey must reassess its water management policies and practices in agriculture and the intricately linked food and beverage industry. There are signs that climate change has already affected crop productivity and will put increasing pressure on agriculture and industry in the coming decades that call for the development and implementation of options for climate change adaptation. Many of the options for agriculture are similar to existing 'best practice' and "good natural resource management" thus do not require farmers and industry to make radical changes in their operations in the near term. These options can and should be prioritized as part of a set "no regrets" investments or "win-win" strategy for agriculture in general and food and beverage industry specifically e.g. water saving technologies because they will bring immediate and sustainable benefits while preparing the sector for climate change. The economic effects of climate change will not be significant until the late 2030s as suggested in a recent study<sup>25</sup>. Therefore, Turkey has a window of opportunity to develop and implement adaptation policies since agriculture and food production will be the most affected sectors from the predicted water shortages.

32. **Natural Resource Management.** Natural resource degradation, resulting in lowered agricultural yields, loss of soil fertility, and declining incomes have seriously affected the rural population in Turkey. Deforestation to meet increasing timber, fuel, and fodder demands, together with the overgrazing of rangelands, farming on steep slopes, and lack of effective soil conservation

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<sup>24</sup> International Finance Cooperation and European Bank for Reconstruction and Development 2013. Climate Risk Study, Pilot Climate Change Adaptation Market Study: Turkey.

<sup>25</sup> Dudu H., Çakmak Erol 2012. Climate Change and Agriculture: An Integrated Approach to Evaluate Economy-wide Effects for Turkey.

practices on agricultural lands, resulted in widespread deterioration. In the early '90's, the Ministry of Forestry jointly with the World Bank developed and implemented the Eastern Anatolia Watershed Rehabilitation Project targeting sustainable natural resource management and poverty reduction on a watershed basis. In 2004, Anatolia Watershed Rehabilitation Project became effective. The program of watershed management at the micro-catchment level was unique in Turkey, and was developed and implemented using a participatory planning method that directly engaged the beneficiaries and local government counterparts in all aspects of design and implementation—a key to promoting ownership. The projects also created a platform for various governmental departments and directorates to work together collaboratively at both the local and national levels. Most importantly, the projects established a direct link between natural resource rehabilitation and tangible economic and social benefits, which led to its overall success.

33. In 2011, the third watershed rehabilitation project that is on-going was developed with the support of IFAD to be implemented again in Eastern Anatolia (Murat River Watershed Rehabilitation Project; MRWSP). In the same year, Coruh River Watershed Development Project that was financed by Japanese International Cooperation Agency (JICA) has started in the Black Sea Region of Turkey.

34. Turkey shares its accumulated experience with other countries by conducting training courses and providing project support where TIKA has been a major interlocutor and financier of the training. Ministry of Forestry and Water Affairs has an on-going national program to scale up and pursue the same approach in different parts of Turkey by using domestic funds.

35. Another important effort in natural resource management is the **Environmentally Based Agricultural Land Utilization Program (ÇATAK)**. It was initiated through the World Bank supported Agricultural Reform Implementation Project (ARIP; 2001-2008). At design, the program aimed at replacing environmentally intrusive agricultural practices with substantially less disrupting forms of land use, in areas of particular environmental value in terms of wildlife and other natural assets. It was initially based at four specific nature reserve areas where farmers in four provinces were offered three different programs: i) Category 1, intended to form the margins valuable wetlands, and a true environmental set-aside, permitting planting of only permanent grasses and trees; ii) Category 2 was for adoption of reduced flow (including drip) irrigation, organic farming, contour tillage, and other less polluting or erosion inducing methods; and iii) Category 3 was to switch from annual cropping and intensive grazing to reduced grazing densities and pasture rehabilitation. For each category, farmers were paid based on the size of the land that they implement the program. The program has been mainstreamed by the MFAL in different provinces focused on different categories in actual implementation. In 2014, about USD24.6 million was paid out to 15,429 farmers in 13 provinces for totally 50,555ha of implementation area.

36. MFAL has large programs for IPM and Good Agricultural Practices insuring minimal human exposure to health risks and minimal hazards to environment.

## **B. Rationale**

37. **Government Policies and Strategies.** The basic rationale for the GTWDP resides in the Government policies and strategies articulated in the following: i) Long-term Strategy; ii) Tenth Development Plan; iii) Rural Development Plan; iv) Agricultural Development Plan; and v) National Climate Change Strategy and Action Plan.

38. Disparities in socio-economic development remain significant in the country, east-west direction, between the coastal areas and the inner land.<sup>26</sup> Significant discrepancy also prevails between the upland and lowland areas in all regions, including the coastal area and western part of the country. This leads to migration from east to west, from the inland towards the coastal areas, from rural areas to large cities and from upland villages to lowland settlement areas. Government is keen on eliminating disparities between rural-urban areas and across regions as clearly stated in the

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<sup>26</sup> Ministry of Development. Tenth Development Plan.



**Long - term Strategy 2001-2023.**<sup>27</sup> The **Tenth Development Plan 2014-2018**<sup>24</sup> includes regional development policies that envisage a more balanced distribution of welfare over the country and maximum contribution of all regions to national growth and development by utilizing their potential and increasing their competitiveness. Government's **National Rural Development Strategy (NRDS) 2007-2013**<sup>28</sup> has been prepared in conformity with the National Development Plans and identifies the main aim in rural development as "to improve and ensure the sustainability of living and job conditions of the rural community in its territory, in harmony with urban areas, based on the utilization of local resources and potential, the protection of the rural environment and cultural assets." The **National Rural Development Strategy (NRDS) 2014-2020** has been prepared in conformity with the National Development Plans and identifies the following as main strategies: i) reduce socio-economic development the discrepancy in between the rural and urban areas; ii) reduce the impact of rural-out migration on the rural areas; iii) strengthen the governance of rural policies at the central and field and iv) contribute to the compliance with EU agriculture and rural development acquis before pre-accession process. The document also sets the framework for the IPARD II Program.

39. Some expressed strategic goals are: i) to develop agricultural and social infrastructure services and increase the appeal of rural areas by rural development and improved welfare, ii) to provide food security and accessibility to quality agricultural products while protecting the agricultural resource base; iii) to enhance food reliability in accordance with international standards from production to consumption ('farm-to-fork'); and iv) to increase crop production by ensuring quality through environmentally-friendly and effective production systems. On the other hand, the **National Climate Change Strategy and Action Plan 2010-2020 (NCCSAP)** identifies the strategies for the agriculture and forestry sectors for climate change adaptation (and greenhouse gasses) in vulnerable areas such as water supply, food security, energy, industry, transportation, waste, land use, other ecosystem services, disaster and risk management and human health. The second edition of the NCCSAP foresees the integration of climate change adaptation into national, regional and local policies. Within this broad framework, the Government is ready to allocate more than the usual levels of counterpart funds for the proposed Project in this almost-marginalized GTWDP area, by increasing the contributions other than the usual forgone taxes and duties to cover up to 30% of the selected investments such as civil works.

40. **Socio-economic conditions of the GTWDP area.** The geographical area of GTWDP is well justified for IFAD intervention with its poor socio-economic condition and challenging terrain. Based on 2011 Socio-Economic Development Index/Ranking (SEDI), among the 81 provinces, Konya and Karaman provinces respectively rank as the 9<sup>th</sup> (Second Degree Developed) and 43<sup>rd</sup> (Third Degree Developed), out of the 5 'Degrees' grouped, with the 1<sup>st</sup>, as Istanbul, being the most developed.<sup>29</sup> However, there are significant socio-economic discrepancies between the lowland and upland areas within these provinces. Although the rankings for the district-level (6 groups are identified as opposed to the 5 groups in the case of provinces) have not yet been updated at the national level, the field visits revealed that they have maintained at least their 2006 status, mainly 4<sup>th</sup> and 5<sup>th</sup> Degree Developed out of the 6 Degrees grouped, with the 1<sup>st</sup>, as one of the districts of Istanbul, being the most developed. A recent study<sup>30</sup> undertaken by MEVKA in 2012 indicated that among the 37 districts of the two provinces all eleven Project districts are in the "Least Developed Group".

41. **Structural constraints of smallholders.** These include lack of economies of scale in agricultural production due to small land sizes (3.5 ha/hh), insufficient use of modern technologies, lack of collective action, lack of or aged marketing infrastructure, limited market information, and underdeveloped or asymmetric linkages between farmers and agricultural enterprises. There are a number of farmer organizations of various forms in the Project area but the majority is dormant. Although farmers know that they are economically vulnerable individually and acting together would give them the bargaining power and the advantages of economies of scale, they fail to act collectively

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<sup>27</sup> Ministry of Development 2000. Long-term Strategy 2001-2023.

<sup>28</sup> State Planning Organization (SPO) 2006. National Rural Development Strategy.

<sup>29</sup> Ministry of Development 2013. İllerin Sosyo-Ekonomik Gelişmişlik Sıralaması

<sup>30</sup> MEVKA 2011. Konya Karaman İlçeleri Sosyal Gelişmişlik Endeksi

and commit to their already established organizations primarily due to being unwilling to accept responsibilities and financial participation while dwelling on past negative experiences e.g. mismanagement and corruption. The Project would help to increase the capacity of the smallholders to organize for social and economic empowerment or reactivate the existing organizations by overcoming weak governance, accountability, financial and management capacity issues. Comprehensive training programs supported by exposure visits would be undertaken that in turn help them to meet the EU requirements and to operate their farms and organizations as business entities capable of competing in the national and in the long run in European markets.

42. Smallholders have limited access to new technology and finance despite funds being available from various sources such as MFAL's Rural Development Investment Program, IPARD, local development agencies of MOD and the Ziraat Bank (Agricultural Bank). In the Project area, they have been unable to meet the collateral, detailed application and prequalification requirements of these sources and modern investments such as high wire training for vineyards; orchards with dwarf and semi-dwarf fruit varieties or drip irrigation remain limited.

43. Agricultural land in the Project districts is limited and fragmented, typical for upland villages situated in rough terrain. Although Turkey has extensive experience in land consolidation, the topographic characteristics of the Project area are not suitable to undertake such interventions. Therefore, rural households rely mostly on fruit production on these small and scattered plots that are mostly rain-fed. Some cereals are produced and small flocks of goats are kept to support livelihoods (mixed farming). While water availability is not a limiting factor in most part of the Project area and there are suitable areas for irrigation, only 15% of the agricultural land is currently equipped for irrigation by investments made by the state where water use is inefficient as investments have stopped at the farm gate. Pressurized closed pipe irrigation systems up to farm gate are fairly new to the area, with the investments by the state after 2013. In most holdings, the on-farm portions of the investments undertaken by Konya Development Administration (KOP) are incomplete because the agency is responsible only for the off-farm investments. Farmers are expected to take the initiative to install on-farm drip irrigation system in their plots. However, the supporting program proposed by the state to develop on-farm irrigation is not found attractive by the farmers due to affordability and the lack of business sense of the farmers who they do not (yet) have the skills and commercial sense to see beyond the immediate cost of any investment. Therefore, the Project would introduce Matching Grants Program (MGP) to substantially ease the financial burden for on-farm investments. In fact, farmers are keen on having sufficient irrigation water for their horticultural crops and/or expand these area of horticultural crops based on the availability of on-farm water.

44. Studies indicate<sup>23</sup> that irrigation water shortages appear likely to occur under climate change that the GTWDP would address through a range of adaptive measures such as improvements in farmer trainings to ensure more efficient on-farm water use during dry seasons and increase on farm water storage. Additional investments in the current irrigation infrastructure would also improve use of available water resources for the agricultural sector that traditionally consumes most of the fresh water. On the other hand, the production potential of rainfed land that constitutes about 85% of total agricultural land in the Project area has not been fully exploited. Farmers tend to consider rainfed agriculture as a temporary stage that they have to bear until the water comes and 'saves their lives'. They neither value rainfed agriculture nor give the same care to rainfed crops as for irrigated ones while in fact, it is the rainfed agriculture that would be most impacted by the climate change. Evidence suggests that smallholders engaged in rainfed agriculture face adaptation deficit for the existing climate and would face far greater challenges in the future. Goats are highly climate resistant but their use of grazing areas need to be managed sustainably and in a comprehensive way. While decreasing the adaptation deficit could be a long-term process, the measures that would be undertaken by the Project would strengthen the sector's adaptive capacity in a short time.

45. **Natural Resource Management.** The proposed Project would support the Government's efforts to reduce further degradation in upland areas of the Göksu Sub-Catchment where the Project area is located and to improve the natural resource base as a means to raise income and livelihood in

upland villages. By considering the link between the natural resource degradation, poverty and climate change, it is clear that the livelihood of upland communities will increasingly depend on whether effective measures to address natural resource degradation and adapt to climate change are taken. The Project would complement the work undertaken by the Ministry of Forestry and Water Affairs (MFWA) in the micro-catchments of the Project area that emulate the approach of the IFAD's Murat River Watershed Project (MRWP). Substantial experience sharing would result from the synergy created. This would enhance any NRM approach undertaken by the PDAs and conversely support the income generation activities foreseen by their MFWA's projects.

46. **Market opportunities for smallholders in high value products** are available for the productive poor, particularly for horticultural crops due to: i) varying topography of the area that allows off-season production (both early and late) due to the elevations from 600 m to 1800 m, ii) good quality road network except few remote villages, iii) mature urban markets in close proximity; and iv) neighboring Mediterranean coast (Antalya, Mersin) with extensive investments in tourism and yet-unfulfilled demand for the products from the Project area with buyers/traders coming at harvest times. However, to tap these markets opportunities, farming must be seen as a *business* opportunity that is fully integrated into markets and value chains and the farmers must gain the necessary skills e.g. business and negotiating skills. In the Project area, fragmented land is accompanied by diverse agricultural practices applied by individual farmers and results in production volume and quality that varies across even their individual plots. The fragmented and heterogeneous nature of production and lack of collective action prevent the households from capitalizing on economies of scale or the market opportunities available to them. Small volumes taken to the market by individual farmers reduces bargaining power while dealing with fresh produce is a further challenge. Weak bargaining power and market failures in the output markets are common problems faced by farmers. There is high degree of variability in prices and, with limited market information, they get relatively low share of the retail price. The transport entrepreneurs, intermediaries, traders, agro-processors and resellers have captured the value-adding steps. The rationale of the Project allows small producers to benefit from becoming integrated into the commercialization of agricultural production by moving down the value chain; i.e. by taking over some "steps" which had been not accessible by smallholders in the past. In fact, some value adding steps identified as being relatively easy to take over by farmers including cleaning and sorting (simple lines) and packaging. Given the low level investment in the agricultural sector in the GTWDP relatively large investments are clearly required. The Project would subsidize such private sector investment through the MGP that facilitate public private partnership. To facilitate this partnership, the Project would finance a service provider for marketing consultancy to mentor and assist the smallholders who have organized. It is expected that the business models/innovations tested and proven to be successful through the Project would be scaled up with sizable government budget nationally and elsewhere or by other donors. The cold storage available in the area is either dysfunctional or operating under poor management.

47. **IFAD's engagement.** Turkey's transition to Upper Middle-Income Country (UMIC) status has not meant the end of poverty. In fact, as seen in the relatively two prosperous Project provinces, there remain pockets of poverty particularly in the uplands. For years, the public and private sectors have neither has been agile nor interested enough to address the issues in agricultural and rural sectors and linked poverty in such upland areas. While the MFWA has a mandate to improve welfare in these areas that are almost universally gazetted forestlands, their tool kit for such has not been efficient and sufficiently effective. Also, the administration of rural infrastructure and NRM is fragmented. The GTWDP area has suffered from low investment in all sectors, and as living conditions standards have remained low, rural out migration has been inevitable and so far largely irreversible. The most significant portion of out-migration comes from those few outdated subsistence farms, which have insufficient income and underutilized labour. IFAD's focus on poor and vulnerable farmers in less advantaged and challenging areas is highly relevant for the GTWDP area and would help to address inequality. Despite low socio-economic development status of the Project districts food security is not an issue because the poorest are eligible for social assistance including food aid. Therefore, IFAD's more nuanced approach to targeting that focus on the "**productive poor**" would be adopted for the

GTWDP. The project interventions are tailored to those who have the capacity to the exploit economic opportunities presented.

48. In a large UMIC like Turkey, particularly when the size of its considerable development assistance as a donor is considered, IFAD's overall development contribution could be seen marginal. On the contrary and decoupled from its financial resources, there has been demand for IFAD to demonstrate new models and approaches, knowledge products and services and global reach to mobilize required expertise.

49. Turkey is chairing the G20 in 2015. It must be noted that the Final Communiqué of Agriculture Ministers Meeting in May 2015 called upon the FAO, **IFAD**, UNCTAD, the World Bank Group and OECD to provide guidance to interested countries on the operationalization of the principles regarding the *Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT)* and *Responsible Investment in Agriculture and Food Systems* that were endorsed in 2012 and 2014, respectively. The ministers also invited the OECD and other relevant international organizations including IFAD to continue to support the development of the G20-initiated framework for sustainably improving agricultural productivity.

50. Some new models and approaches used by previous IFAD projects are being mainstreamed by MFAL such as Strategic Investment Plans (SIPs) introduced by Sivas Erzincan Development Project (SEDP) in 2005. The approaches were also used in the Diyarbakır Batman Siirt Development Project (DBSDP) and by MFAL in the Ardahan Kars Artvin Development Project (AKADP) that became effective in 2007 and 2010, respectively.

51. The matching grant program that was used in IFAD projects originally developed for the Village Based Participatory Investment Program introduced by the World Bank in 2004, mainstreamed by MFAL in 2006 and later was improved by IFAD to make it more pro-poor for its projects taking into consideration their financial and technical constraints. The benefits accrued from the matching grants were not coincidental since the procedures applied were complementary to achieve the expected results in IFAD Projects: i) the area of investment was thoroughly reviewed in terms of local opportunities by SIPs, ii) the appropriateness of the applicant was measured according to a set of eligibility criteria and iii) most of the beneficiaries received training on the procedures regarding grant use and on recommended agricultural practices.

52. IFAD's more recent focus on value chains is also among the aims of the GTWDP as an effective way of strengthening the long neglected links between the productive poor and markets, due to the focus of the both public and the private sectors on those more prosperous, resource-endowed and geographically and ecologically less challenging areas. The GTWDP would further enhance the SIP approach in Turkish rural poverty context with the selection of pro-poor value chains.

## **II. Project description**

### **A. Project area and target group**

53. The GTWDP would be implemented in selected villages of 11 districts of Konya and Karaman provinces of Central Anatolia. These districts are located in the Göksu sub-catchment, one of the four in the East Mediterranean Watershed. The Project area has 32,098 households living in 212 villages with a total population of 118,800 that are situated in the mountainous parts of the 11 districts where the elevation varies between 600m and 1800 m. The majority is engaged in fruit and field crops production on 166,536 hectares.

54. Based on the 2011 Turkish Socio-Economic Development Index/Ranking (SEDI), among the 81 provinces, Konya and Karaman have the status of Second and Third Degree Developed Provinces respectively. However, all Project districts are in the lower segments of socio-economic development both in Turkey as a whole as well as within Konya and Karaman as provinces. The discrepancy between upland and lowland villages of these two provinces is significant. The study by MEVKA in

2012 reveals such disparities (Table 1) on 166,536 hectares, of which only 15% are irrigated and used for keeping small flocks of small ruminants.

**Table 1: Socio-economic ranking of districts of the Project Provinces (MEVKA 2011\*)**

District	Ranking	Index	District	Ranking	Index
Selçuklu	1	3,61	Güneysınır	20	-0,32
Meram	2	2,77	Ermenek	21	-0,33
Karatay	3	2,37	Sarıveliler	22	-0,34
Ereğli	4	1,02	Bozkır	23	-0,41
<b>Karaman M.</b>	<b>5</b>	<b>0,74</b>	Çeltik	24	-0,49
Akşehir	6	0,68	Doğanhisar	25	-0,5155
Seydişehir	7	0,36	<b>Başyayla</b>	<b>26</b>	<b>-0,52</b>
Beyşehir	8	0,18	<b>Akören</b>	<b>27</b>	-0,59
Kulu	9	0,17	<b>Taşkent</b>	<b>28</b>	<b>-0,65</b>
Cihanbeyli	10	0,13	Hüyük	29	-0,66
Karapınar	11	0,06	Halkapınar	30	-0,66
İlgın	12	0,01	Kazımkarabekir	31	-0,66
Çumra	13	0,00	Tuzlukçu	<b>32</b>	<b>-0,73</b>
Altınekin	14	-0,12	<b>Ahırlı</b>	<b>33</b>	<b>-0,74</b>
Kadınhanı	15	-0,15	<b>Yalıhöyük</b>	34	-0,74
<b>Hadim</b>	<b>16</b>	<b>-0,19</b>	<b>Ayrancı</b>	35	-0,76
Sarayönü	17	-0,24	Derbent	36	-0,78
Yunak	18	-0,28	Derebucak	<b>37</b>	<b>-0,95</b>
Emirgazi	19	-0,31			

Project districts are highlighted

55. The upland villages in the Project area are among the poorest in the region, dependent on semi-subsistent agricultural production supplemented with state and private welfare support. The farmers/producers are individualistic and have been reluctant to join forces and weak on collective action. The Project is oriented towards raising awareness of the productive poor on the bargaining power gained through collective action; their economic empowerment through improved agricultural productivity and more commercialized production, thereby improving their livelihood.

56. Average household size is 3.7. These households are semi-commercial; some have established links with the markets while others' engagement with the market is "hit or miss" in nature. They cultivate an average of 3.5 hectares of cropland that come in several pieces and keep mostly goats (30-50 heads). The land could be either i) totally rainfed (most prevalent) or ii) mostly rainfed, with some irrigated patches. Totally irrigated is rare. They suffer from production fragmentation and poor organizational capabilities that results in failure in combining forces to move products of sufficient volume and consistent quality to satisfy the large-scale buyers' expectations, lack of training on modern techniques for upstream production and post-harvest handling, and marketing towards downstream systems and consumers.

57. The Project will target (i) HHs of smallholder farmers to move to semi-commercial farming while building their resilience to climate change; and (ii) support communities (resident and nomads) for participatory development and implementation of community based NRM plans. There will be two target groups: i) primary and ii) secondary.

58. **Primary target group:** The total number of project beneficiaries would be around 32,000 households consisting of the following groups:

1. **Productive smallholders** (men and women) farmers (main target group) in targeted districts who practice mixed farming in the uplands as permanent residents. This group comprise of farmers with marginal and adequate surplus and farmers with producing surplus for marketing.

2. Poor households, youth that are looking forward to have some livelihood opportunities to continue their lives in the otherwise may migrate and women (including women headed households that are rare). This group will benefit from direct targeting mechanisms guided by quotas for livelihood support and for women in participating in FOs and value chain development. Poorest households are the ones that are almost near landless, not fully engaged in agricultural production and rely on social assistance. The project will mobilize effort to target at least 20% HHs of the project belonging to this group.
3. Nomads (pastoralists): This group (the total number may vary over 150 families) engaged in livestock production as primary livelihood and reside in the Project area for about 4-5 months per year. They live in the Mediterranean Region during the winter and move northwards to the Project area with their herd (estimated as 50.000 goats and sheep) in order to graze them. Their livelihood is affected by the fragile eco-system and climate change further distressed by human activities and land use change (grazing land management/forest protection) has endangered their livelihood and lifestyle. The Project will target all families, with particular attention to the poorest ones (estimated around 120) vulnerable and those having less access than others to key services for their livelihood. They will benefit from direct-targeted interventions.

59. **Secondary target group**: These will be extension services providers (public and private), providing other support services to smallholders' farmers as well as nomads. The project will also aims at building capacity to provide better services to farmers essential for inclusive and effective value chain growth on one hand and also on sustainable use and management of natural resources (land, water, rangelands) and enhancing local governance and consultative processes. This is particularly relevant for the demand-driven nature of the intervention.

60. **Beneficiary selection and self-targeting**: All target groups can apply to benefit from project opportunities (self-targeting). However, to benefit from investments (through matching grants) the applicants need to comply with the eligibility criteria set in the PIM. There will be no criteria to participate in awareness raising and training.

61. Poor households as indicated above, rely on government social assistance that identify beneficiaries through a local committee and based on a set of criteria (paragraph 14). The Project, instead of setting up a parallel and potentially a conflicting system to identify such households will rely on the current well-functioning system. The Gender and Community Development Focal Point (GCDFFP) would work closely with the head of the District Director of MFAL and village headmen (members of the local committee and will receive relevant sensitization training) to ensure that poor women and youth are evaluated objectively.

62. **Direct targeting**. Particular attention to reach out the more disadvantaged families of nomads will be put in place. The small group of 120 poorest families, which appears to be more poor and disadvantaged than the other families. Nomadic families will be receiving support as the resident communities such as overnight shelters, livestock drinking water troughs, portable solar energy panels for milking machines and pumps for drinking water, In support of existing field veterinary services, training selected Yörüks pastoralists as Community Animal Health Workers on basic animal health practices (e.g. deworming) to improve livestock health.

63. **Youth Targeting and mainstreaming**. For the youth, limited land availability is an incentive to look for an income outside agriculture. Despite increased openings in income generation linked to non-farm activities the main livelihood source remains agriculture. The project will therefore assist youth in exploring agricultural income generating activities and it will reach out to those who have managed to buy land through non-agricultural wage earning and are ready to grow into future entrepreneurs and leaders. The project will: i) profile young people as part of the baseline value chain analysis and locate those that are household to have a better understanding of their poverty levels ii) prioritize young people for training related to the development of skills and capacities in off-farm income generation iii) promote poorer young households gaining access to labour generated by the

project; and iv) identify within cooperatives the high potential youth that has good literacy skills and can be selected for the future leaders training.

64. **Incentives for women inclusion.** Proposals presented by FOs whose number includes at least 30% women would have preferential consideration in the selection. Specific process for selection of beneficiary groups will be developed in the PIM building on the above principles, ensuring screening as an ongoing process.

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

65. The overall Goal of the GTWDP, as phase one of a two Project Programme, is to reduce rural poverty by supporting economic diversification through value chain development in Turkey. The Project Development Objective is to increase farmers' income from improved agricultural production and marketing activities in the targeted area with strengthened resilience to climate shocks. The Project would also contribute to improving the standards of living of the nomadic Yörük tribes in the highlands of the Taurus Mountains, through capacity building that would assist them to organize for improved management of the common resources.

66. The outcomes of the project would include: i) sustainably increased farm productivity ii) climate-resilient natural resource management practices adopted and iii) smallholder producers receive higher product prices.

## **C. Outcomes/Components**

67. The outcomes of the project would include the following: i) Farm productivity being sustainably increased through improvements to agricultural productivity access to effective technical advisory services, new knowledge and skills, modern inputs, and through a Matching Grants Program, assist producers to reach new technologies including the introduction of energy saving solar technologies; ii) climate-resilient natural resource management practices adopted through capacity building for all stakeholders including the nomadic Yörük tribes, better access to early weather warning data through investments and training; wider adoption of climate smart technologies through investments in efficient irrigation and water harvesting, improving land management in the rangelands and marginal agricultural land through investments in terracing, and iii) producers receiving higher products prices value through improving the value chain processes and enhancing farmers' capacity to organize and invest in well-functioning value chains.

### **Components**

68. Field observations revealed that farmers are little aware that quality starts upstream in the value chains and quality and price at farm gate is a consequence of factors of both pre- and post- harvest. In view of this, the components, and their subcomponents, are intricately woven with intrinsic complementarities so as to maximize the impact of each. Within this framework, the GTWDP would include three components namely: i) Agricultural Productivity and Natural Resource Management, ii) Market Access Enhancement, and iii) Project Management.

### **Component 1. Agricultural Productivity and Natural Resource Management**

69. The component would improve overall agricultural productivity and profitability by sustainable management of available and often scarce land and water resources in upland areas through good agricultural practices and climate smart investments that reduce external shocks. Resource poor, financially challenged and ill-trained farmers suffer most from adaptation deficit. The component would support the following practices to improve the resilience of small farmers to climate change: i) improving farmer access to agronomic technology and information; 2) increasing the quality, capacity, and reach of extension services; 3) encouraging farmers to insure their crops against adverse weather.

70. The current adaptation deficit that calls for rapid actions focusing on the following practices: i) shifting to drought resistant or tolerant crop types, ii) shifting to drought resistant or tolerant crop varieties; iii) change cropping pattern by altitude; iv) improving irrigation capacity and efficiency by new investments or rehabilitation to optimize application of irrigation water, v) optimizing fertilizer application, vi) improving access to meteorological data, vii) adding water storage capacity, viii) installing hail nets for fruit trees, ix) high wire training system for vineyards, x) improve livestock nutrition and shelter on the grazing land; xi) improve farmers access to finance to enable them to access new technologies.

71. There would be two sub-components: 1.2. Improved Agricultural Productivity and Quality, and ii) Natural Resource Management.

72. **Sub-component 1.1. Improved Agricultural Productivity and Quality** would focus upstream of the value chains (VCs) of promising crops in the Project area and target gaps critical to improve productivity and quality. The GTWDP would initially focus on four crops: i) cherries, ii) grapes, iii) strawberries, and, iv) medicinal and aromatic plants (MAPs). The detailed design mission identified these four crops that have potential to benefit most from the upstream investments and demonstrate the success and potential of the implementation approaches while building replicable and scalable models. The selection was based on: i) local production capacities; ii) comparative advantages iii) seasonality of supply and demand, iv) market access and productive potential of different locations in the area, and v) indigenous knowledge embedded in tradition.

73. During the first year of implementation, following intensive awareness building on the objectives and the tools of the project, a menu of investments would be offered to the target beneficiaries. The menu would be developed based on detailed discussions with various technical stakeholders and producers of all scales. The menu would reflect the local improvement opportunities in agro-ecological characteristics of the project area, dominant production types and patterns, market conditions, specific needs and demands of the poor smallholders, availability of non-monetary resources such as human capital, available water and good soil, access to information and knowledge products and constraints of the seasonality of access that vary across different parts of the area. Close cooperation with the MFAL and private (e.g. agro-industry) agricultural research system would be established and maintained throughout Project implementation.

74. The menu would cover both the rainfed and irrigated areas and include the inputs, while remaining flexible to be amended in the light of Project implementation experience, This menu would include: i) the new crop varieties (e.g. dwarf or semi dwarf cherry varieties, disease resistant chick pea varieties); ii) modern growing techniques (e.g. production under plastic tunnels, high wire training system for vineyards, solarization in plastic tunnels); iii) water saving irrigation techniques supported by solar energy use (e.g. on-farm drip irrigation); iv) agronomic practices that would contribute to the increase in production volumes and improve uniformity for improving quality by the smallholders to help them to also capitalize on economies of scale. Integrated pest management (IPM) is rarely used in the Project area and its use would be expanded, including investments for early warning systems. The Project would support Good Agricultural Practices and the GlobalGap.

75. The Sub-component would support on-farm small-scale drip irrigation to improve water use efficiency in existing irrigated areas where there are significant losses due to both primitive or open conveyance, generally in earth canals for flood irrigation and lack of training and awareness, or where public investment to shift from open canals to pressurized irrigation stopped at the farm gate. The sub-component would also provide water for some rainfed areas that would be opened to irrigation. The Project would finally support the on-farm construction of small water collection ponds under the second sub-component and identify opportunities for larger ponds to be developed by public investment. Together with the area that would be opened to irrigation through these ponds where the total area that would receive Project investment for small-scale irrigation would be about 1100 ha.



76. Matching Grants Program (MGP): Matching Grants Program (MGP): There are several ongoing matching or contributory grant programs that are being implemented by or through the MFAL, namely IFAD-financed Sivas, DBSDP, AKADP, and the IPA-RD program and the Rural Development Support Funds. While supporting a broad range of agricultural investments ranging from simple purchase of equipment to establishing processing facilities by SMEs or individuals, both operate on the basis of upfront payment by the beneficiary in full of the cost of the investment and reimbursement for the matching grant amount after completion. The smallholders in the Project area cannot afford to invest the full amount upfront and those that can frequently expand their operating capital during the initial capital investment. This results in failed investments. The MGP modality as designed in IFAD projects ensures that the beneficiaries not risk all of their capital at the start.

77. Reduced need for collateral. Furthermore, such matching or contributory grants that require 100% upfront payment (as pre-financing) obligate the beneficiaries to often borrow from commercial banks with stringent collateral requirements and the need to generally show at least two government employees as guarantors/co-signatories. It must be noted that most of the rural poor also use commercial credit, albeit subsidized to a certain extent, to carry out their normal agricultural operations. In fact many banks have tailored short term “at harvest” credit facilities that the producers repay, with interest, after harvest. If any, the credit limits of the small producers are usually used at the maximum for routine cropping operations, i.e. for seed or fuel or machinery and/or equipment renewal. The well-targeted – and monitored - GTWDP would construct terraces s of IFAD projects are a savior for such collateral poor, small producers who can mobilize their meager credit allocations to leverage the most favorable investments. The rigorous support provided at the early phase to identify viable business proposals to use the MGP also instills confidence in the beneficiary toward the program. These grants cover 50% of the cost of the machinery and equipment where the transaction has to be completed within 60 days following the signing of the agreements meaning in this time period the farmer is obligated to pay 100% of the value of the goods.

78. The Project will have a MGP element to support, among others, the smallholders who elect to benefit from the above described interventions menu. The differentiation of the support by MGP would be based on the typology of the investors that would incentivize and give bonus for collective action, as through formal or informal groups. The details of the MGP would be set out in the PIM as below. However, these proportions will be revised during project implementation as and when needed to secure maximum benefits to the rural poor within their means:

- a) 50% MGP contribution for individual and existing enterprises;
- b) 70% for grant for new SMEs
- c) 75% for FOs and informal groups

79. The MGP would be implemented using the Grant Manual The MGP would be based on eligible business plans prepared by the beneficiaries with the assistance of Project-sourced Business Development Services providers. The guidelines would benefit from the experience and lessons learned from the closed SEDP and DBSDP as well as the on-going AKADP and MRWSP where matching and/or contributory grants were used to incentivize the smallholders to invest in new crops and small collective enterprises.

80. Transparency and accountability measures for the MGP implementation and monitoring include at least the following: i) the PIM would be in place before implementation starts, the regular updates would be made when needed; ii) financial management rules of the Project would be applied to the MGP; iii) terms of reference for Project auditors would cover activities financed through the MGP; iv) regular and spot checks for evaluation of applications during supervision missions and v) matching grant terms and conditions would be publicly announced and information bulletins would be made available for the interested parties.

81. Eligibility criteria for the use of the funds under the MGP would be detailed in the PIM and revised as soon as practicable to include the results of the baseline survey (BLS). These would include but not be limited to livestock owned and land cultivated as indicator of assets, gender, age, membership in existing FOs, previous grant use from Government sources (MFAL, EU, etc.) family size, and distance to markets and processors for crops produced. Other activity- and location-specific criteria would be determined following the BLS. Applications by women, proven female-headed households and formal and informal FOs and SMEs with women as registered shareholders would receive positive discrimination. The MGP would be competitively administered, through periodic calls for proposals.

82. A committee comprising C/PPMU representatives would decide using guidelines of the PIM. Each application to benefit from the MGP, independent of topic, scale and crop-base would be based on a business plan that proves viability (affordability) and profitability. The Project would support the Business Development Services (BDS) that would prepare the business plans of the applicants. Participation in the training programs provided in the first year of the Project (or the refresher courses repeated as necessary) would be a prerequisite for applying to the MGP.

83. This jointly accumulated experience of IFAD and the MFAL as well as the national guidelines and legislation to identify the poorest of the poor would ensure effective targeting of the poorer smallholders. As such, while elite capture would be eliminated, those that have the capacity to guide as lead farmers would not be excluded particularly in demonstrating best practices. In the region, large farmers are considered as role models by the small and poor ones for technology use and as the opportunities avail, such large ones are emulated.

84. Activities under the Sub-component would vary to fit the current agro-ecological and socio-economic conditions in each district and village as well as farmers' resources and needs and demands. Design considerations for the small-scale irrigation would be: i) introducing technical and financial feasibility criteria as a determinant for the investment and ii) acceptance of the principles of cost sharing involving beneficiary contributions for all village infrastructure investments.

85. In order to ensure the O&M for irrigation infrastructure, written agreement would be secured before starting any investment to ensure that any existing irrigation cooperative or association accepts the O&M responsibility and, if there is no organization, the beneficiaries of the investment would act collectively and establish a Water User Association (WUA) or cooperative and commit themselves to the O&M of the investment. Comprehensive training and capacity building would be delivered through the Project's resources.

86. The sub-component would support activities to increase the productive potential of the women and youth, as well as the elderly. Small-scale commercially oriented poultry production has been identified to have potential since keeping poultry is an ever-present part of the rural life in Turkey and considered as an activity done solely by women. The system would not be designed to compete with the large, high input and intensive commercial poultry production in the project provinces but would target customers who are more health and environment conscious, not interested in mass farmed eggs and meat. Regional branding as "boutique production" would also be promoted.

87. The Project would offer comprehensive training and capacity building tailored for the smallholders (men and women) in the first year of the implementation, Refresher/repeater courses would be provided that take into consideration that new groups are to be supported every year of project implementation. Training and capacity building activities would include farmer exposure visits, on the job training, on-farm demonstrations and regular farmer meetings.

88. Advisory services would be provided through weekly face-to-face interaction with the smallholders in each village, conducting and monitoring on-farm demonstrations, collecting applications for interventions etc. At start-up of the project, two persons to act as "contact persons",

one being a woman, would be identified by the village residents who would assist the mukhtars (village headmen) to coordinate with Project staff.

89. **Sub-component 1.2. Natural Resource Management** would promote best practices and introduce adaptation measures for climate resilient investments on agricultural and grazing lands. The rough topography and climate makes the Project area prone to erosion that has been aggravated by forest and rangeland degradation. However, pressures have been gradually decreasing as result of behavioral changes by the upland communities and reduction until recently in the number of small ruminants due to socio-economic reasons.

90. Erosion and land degradation in the area are still reversible and the Directorate of Forestry (OGM) of MFWA is investing in NRM in the uplands through seven Integrated Micro-catchment (MC) Rehabilitation Projects in Göksu Watershed. The GTWDP would collaborate with OGM in implementation of their agricultural interventions foreseen in the MC plans.

91. Local livestock owners and the nomadic Yörüks follow the flora, grazing at different elevations as the season advances to take the advantage of the change. Some uplands above 1800 m are used for the transhumant livestock, mostly goats. For hundreds of years, at the beginning of summer, nomads of the Taurus Mountains, known as Yörüks, take the traditional trails from the hot coastal plains to the cool prairies and high rangelands of the western/central Taurus Mountains. The investments made under the Sub-component would also contribute to improving the standards of living of the Yörüks, building on their identity and unique culture while assisting them to organize and contribute to improved management of the common resources. The Yörüks would be informed of all project activities and would be integrated into all capacity building, training and awareness raising programs to the extent they are available to participate while in the Project area. The Project Baseline Survey would collect all relevant socio-economic information on the Yörüks to improve targeting.

92. In the context of a trend of degradation of the natural resources, and with a tipping point coming closer, there is a need for reducing negativity on the ecosystem and organizing the rational use of village grazing lands. Rangelands outside of the gazetted forest area are registered with local rangeland committees based on Rangeland Law No. 4342. The law allows improvements to be made with the consent of the traditional users who have full authority over rangeland management and controlled grazing. The Project would assist to develop participatory grazing plans along with input from the Yörüks as well as for investments in overnight shelters for shepherds (to protect from wild animals and inclement weather), scratch posts, salt licks, as well as in portable mobile solar energy (as panels) to improve quality of for those who use highland rangelands by meeting their energy needs. The electricity would be used for a multitude of purposes ranging from powering milking machines that improve milk productivity and hygiene and reduce the women's burden of milking animals manually, to powering pumps for drinking water as well as basic lighting needs during their 3-4 month stay. Low cost prefabricated steel troughs would provide clean drinking livestock water. The solar energy investments of the farmers or villagers would be accessible through MGP. The village administrations that are legally responsible for their rangeland would undertake the responsibility for the required operation and maintenance of the rangeland infrastructure. The portable solar panels would be delivered to the village administrations that would be responsible for their use as common village infrastructure.

93. Small ponds would be constructed by the Project in order to harvest water from small water sources in the upland areas to be used to irrigate about 1 ha of previously rainfed land. It is estimated that a total of about 300 ha of newly irrigated areas could be used for crops like strawberry, dry beans, medicinal and aromatic plants (MAPs), and for vegetable production under plastic tunnel. Evidence in similar areas of Turkey, specifically in the DBSDP area, indicates that the investments as above reinforce the adoption of NRM rehabilitation investments and their sustainable use by the natural resource users. The potential locations of these ponds will be determined based on the findings of a stock taking study on the uses and availability of water.

## Component 2. Market Access Enhancement

94. The component would increase the incomes of the farmers through higher farm gate prices, improved market knowledge and linkages. The project would support farmers to reduce post-harvest losses and add value to accommodate market demands for quality, volume, regularity, homogeneity, range of varieties and packaging and branding. The producers of fruits and vegetables (F&V) in the Project area are already semi-commercial. The component would be commodity-focused, on the four crops identified during the design mission namely: i) cherries, ii) grapes, iii) strawberries, and, iv) medicinal and aromatic plants (MAPs). In order for these products of higher value to reach broader consumer markets, the Component would support capacity building and investments in the Project area. The support would be given to. I) individual farm holdings, ii) FOs and informal producer groups, iii) new and existing micro enterprises and SMEs. The Project would seek to identify income generation and employment generation opportunities specifically for women and youth.

95. The Component would build on the untapped entrepreneurial capacity of the semi-commercial smallholders and would have two sub components: 2.1. Capacity Building for Marketing, and 2.2. Value Chains Development.

96. **Sub-component 2.1. Capacity Building for Marketing** would improve the knowledge and skills of small farmers and organizations (FOs) where they are members (e.g. development cooperatives, producers' associations). Such improvement is imperative for these producers to ensure remaining competitive and accelerate the shift from "semi-subsistence farming" to "farming as a business". This would be accomplished through extensive training and capacity building for producers and/or the FOs in order for them to make production and marketing decisions that are guided by the value chains of crops that they produce.

97. The Sub-component would also assist to raise awareness of stakeholders on the critical importance of post-harvest activities. Training would be provided on food hygiene and safety, drying and sorting practices to reduce waste and improve quality, accounting, and marketing services. Access for producers to commercial extension would be facilitated. The support program of MFAL includes payments to the private advisors. Synergy would be ensured between the project activities and information services provided from on-going government and private sector programs such as those by the Chambers of Agriculture and Chambers of Trade in the two provinces.

98. Expert service providers would carry out the awareness raising, capacity building and training either in the villages or as larger groups at public facilities. All such activities would be fully inclusive and tailored to target the individual households, existing FOs, enterprises, and where relevant, government staff. Courses designed for women would concentrate on the MAPs and dried grapes VCs where opportunities also reside for micro enterprises that could be operated by women. Synergy would be ensured between the project activities and services and those of other on-going government programs.

99. Current market linkages of the smallholders in the Project area are individual-based and stagnant because most of the FOs is either dormant or struggling to remain active. Two key studies would be conducted in the first year of the Project, after start-up: i) a Gap Analysis/study for market linkages of the producers; ii) a Diagnostic Study for all FOs to investigate reasons for failure and/or being dormant and to identify positive aspects to dwell on for improvement. Both studies would develop recommendations and action plans. The assessment of the results of these would guide the extensive capacity building and training under the Sub-component. These studies would also pave the way for investments in VCs by individual smallholders, the women and youth as well as FOs and micro enterprises and SMEs.

100. The Gap Analysis would be conducted using TA to guide the potential investors to guide future decisions regarding marketing. This analysis would form the backbone of the extensive training and

capacity building again through TA, with inputs from the MAS, to develop the commercial orientation and business notions and skills of the upstream, primary producers of all crops. The results of the analysis would be used to develop a program of exposure visits open to all beneficiaries.

101. The Diagnostic Survey would be conducted to assess the capacity and issues of all FOs in the project area. The results would be shared with members and the management of the FOs at consultative meetings. Following rigorous review of the survey's findings by the FOs, those interested in improving their service delivery to members would apply for Project support. Capacity development plans tailored for each applicant would be prepared. The FOs that successfully apply the recommendations of the capacity development plans to transform into "participatory self-governing entities" would be entitled to project support.

102. **Sub-component 2.2 Value Chains Development** would finance, through the MGP, downstream investments by the beneficiaries in support of the marketing of the improved production and quality under Component 1. Service providers and enterprises that add value to the farm gate or those that provide services to existing and new VCs would be eligible to benefit.

103. Initially, GTWDP would focus on 4 VCs to show success and promising implementation approaches and build replicable and scalable models. Cherry, dried grape, strawberry and MAPs were identified based on the: i) local production capacities; ii) the potential comparative advantages; iii) seasonality of supply and demand, iv) market access and productive potential of different locations in the area, and v) indigenous knowledge embedded in tradition.

104. In full collaboration and participation of the beneficiaries, individually or through their associations, Strategic Investment Plans (SIPs) would be prepared for each VCs. The SIPs would serve as an investment framework to guide Project support to the beneficiaries of differing scales in the VC and also undertake a thorough gender analysis where activities that specifically cater to women would be identified and pursued.

105. SIPs would be developed in full collaboration with the potential investors; i.e. mainly farmers, FOs and SMEs, for cherries, grapes, strawberries and MAPs. Depending on the commodity and opportunities identified, the SIPs would guide investments for the following, individually or in any combination, on- or off-farm:

- a. post-harvest treatment for hygiene and food safety of all products in the VCs ,
- b. drying, grading/sorting, packaging for dried grapes and MAPs,
- c. labeling, branding, particularly for crops of VC that are newly introduced to/being produced and sold from the area such as MAPS and strawberries
- d. Pre-cooling, for cherries and cooling for strawberries.

106. Provisions would be made for technology transfer such as on-farm packaging/labeling of strawberries, solar drying of MAPs and raisins and their regional marking. Technical or vocational training of existing labour force would be provided particularly the women and the youth, as well development of business planning skills. The SIP for MAPs would incorporate improved methods for natural resource management for those that are harvested from the wild.

107. All investment proposals would BP-driven and would be evaluated using criteria detailed in the PIM. Each investment would provide for support to the management of the investment in terms of capacity building, training, and in the case of larger enterprises support for externally recruited management staff that would be paid on descending bases over three years. The eligibility criteria would be established to distinguish between FOs and other SMEs.

108. The Project would ensure, through rigorous risk assessment at the proposal stage, the demand as well as the target markets for an investment. The BPs for the MGP-supported investments would be evaluated on both on the economic feasibility of the proposals and the management structures envisaged and proposals with satisfactory management arrangements would be allowed to benefit from the MGP. The program would also allow provisions for a 3-year support to pay for the nucleus management cadres of the enterprises, that for the small scale anticipated, would consist of a manager and an accountant. The wages of these would be paid from the MGP on a descending basis of 100% in the first, 70% in the second and 30% in the third year of operations, which would start with the year of investment when in-place management capacity is crucial and incomes low due to low capacity at start-up.

109. The differentiation of the support by MGP would be based on the typology of the investors that would incentivize and give bonus for collective action as similar to the first Component.

110. Pending economic viability, the employment aspects of the investments would be evaluated with special consideration for local employment generation, with multipliers used for women and youth in the employee profiles that would be self-evident in the job descriptions of the anticipated positions and qualifications.

111. Investments in new cold storage facilities (CSF) are not anticipated due to the existing unutilized capacity that could be brought on stream. The diagnostic survey under Subcomponent 2.1 would identify the shortcoming of the existing CSFs in the project area, some of which are owned by the public sector (such as ORKÖY of the MFWA) some of which are operated by private lessees. The survey would provide guidance on the options and their costs for bringing these on-stream. PPP options would be sought for the operationalization of un- or under-utilized facilities. Information regarding the outcome of the survey would be disseminated among potential investors, with the support of the provincial Chambers of Commerce, and Industry and Trade. Given the cross cutting nature of the CSF, i.e. being independent of the priority VCs targeted, interested parties, such as FOs or SMEs would have access to the above described MGP facilities. Applicants would be subject to the same BP development and evaluation steps as the other investors.

112. Rural tourism in the project area has been identified in several government strategic documents as having potential for development through investments in simple accommodations and daily tours. The high volume tourism along the Mediterranean coast resorts away are two hours over good roads. Both KOP and the MFWA have developed Tourism Master Plans for the area-at-large that focus on maintaining cultural heritage and *in-situ* protection of the natural resources through increased awareness among the local residents. Furthermore, rural tourism would present substantial opportunities of employment for the youth who would benefit from the vocational training that would be provided. The sector, particularly in accommodation and catering services, present income diversification opportunities for women.

113. The project would review the opportunities for tourism development by conducting a market study in the first year of the project to identify potential at the district level where expert(s) would be contracted. The above-described process of developing BPs for VC investments would apply to candidate investors for rural tourism in the GTWDP area, or outsiders that have certifiably proven experience in rural tourism. The investments in tourism would be expected reinforce the local and regional branding initiatives of the GTWDP.

## D. Lessons learned and adherence to IFAD policies

114. Some of the lessons learned from the recently closed SEDP and DBSDP and relevant to GTWDP are the following:

1. Strategic Investment Plan (SIP): The overall approach has proven its validity in improving medium scale rural businesses' linkages to markets, increasing productivity and producers' incomes. It was recognized as having potential for replication in other geographic areas of Turkey and within other sub-sectors, while respecting IFAD's focus on the poorer rural inhabitants.
2. Matching Grant Programs. The benefits accrued from the matching grants were not coincidental since the procedures applied were complementary to achieve the expected results in IFAD Projects: i) the area of investment was thoroughly reviewed in terms of local opportunities by SIPs, ii) the appropriateness of the applicant was measured according to a set of eligibility criteria and iii) most of the beneficiaries received training on the procedures regarding grant use and on recommended agricultural practices.
3. Support to Farmers Organizations. Supporting and strengthening farmers and producers organizations in key selected activities at local level, are very relevant interventions to enhance the production and managerial capacity of these associations. Through this support the associations can enhance and improve the services they provide to their members towards increasing productivity and income and towards gaining higher bargaining power to improve members' terms of trade and their household income.
4. Pro-Poor Value Chain. It is necessary that the selection of supply chain to be supported and the support of the institutions involved be well balanced to ensure the promotion of commercial agriculture without losing sights of the need of the poorer farmers and the requirements of the pro-poor institutions (e.g. the Agriculture Development Cooperatives). Value Chain interventions for the purpose of IFAD interventions should ensure that the selected supply chains embody robust linkages with poorer farmers; and that these linkages are promoted and supported in design and throughout implementation.
5. Investment in Small-scale Irrigation Schemes. The success of this investment depends on the willingness of farmers to purchase the on farm drip irrigation equipment. However, in order to minimize the risk of not valorizing the investments already made up to farm-gate, farmers need to be asked to sign up and confirm that they apply for the use of water that the project will provide them with and implement water saving technique (i.e. drip irrigation).

115. The projects have suffered from the lack of the capacity to monitor and report on the outcomes and impacts of domestic and donor-funded projects. There is need to develop capacity at MFAL to measure impact at the local, regional and national level. The GTWSP's implementation counterpart, GDAR, has developed the MFAL's newly established management information system named TARBIL. The TARBIL and the Project's M&E would complement each other and the synergies created would be reviewed to be scale up elsewhere in Turkey or used in other counties under IFAD's on-going South-South collaboration with Turkey. The GDAR has an active South-South program that taps into Turkey's considerable ODA that would further complement the synergy.

116. To date, government-led development programs have not been able to attract the private sector in an efficient manner. The GTWDP's design would ensure that through upfront capacity building and training at producers' level, the beneficiaries are integrated into value chains identified as viable for the project area. The introduction of new products into the markets would be strategically determined in close collaboration with all actors within the value chain, i.e. small producers/organisations and agro-processors or traders/exporters.

117. Sustainable rehabilitation of land, vegetation and water resources in degraded uplands, changing traditional behaviours of poor producers who have had almost no technical or intellectual support over decades - as is the case in the project area - and local capacity building for FOs are processes requiring long-term engagement and commitment. A minimum of 7 years of project implementation is needed for the following reasons: (i) slow project take off; (ii) lengthy in-country bureaucracy; (iii) need for upfront capacity building and training; and (iv) limited construction seasons with long winters in the uplands where the Project will be implemented.

118. The ongoing IFAD-supported Murat River Watershed Rehabilitation Project (MRWSP) of the Ministry of Forestry and Water Affairs was designed with the Project's implementation management having been fully mainstreamed into the existing structure of the General Directorate of Forestry (OGM), which demonstrates to facilitate implementation. The overall structures of ministries, their various operational organs such as the various general directorates exhibit similar modus operandi. The implementation management of the GTWDP would also be fully mainstreamed where the GDAR has substantially more experience in both IFAD operations as well as others such as the World Bank and JICA.

119. The overarching policy document guiding the design was the International Fund for Agriculture Development's (IFAD) Strategic Framework (2011-2015). The design of the GTWDP project is also aligned with other relevant IFAD strategies and policies, including:

- Targeting Policy – Reaching the Poor (2006);
- Strategy on Gender Equality and Women's empowerment (2012);
- IFAD Policy: Engagement with Middle-Income Countries (MICs) (2011);
- Engagement with Middle-Income Countries (MICs) – Case study of Turkey (2014);
- Climate Change Strategy (2010);
- Environment and Natural Resource Management Policy (2012);
- Policy on Supervision and Implementation Support (2007); and
- Social, Environmental and and Climate Assessment Procedures (2015).

120. Additionally, the Technical Note on Matching Grants (2012) and the Private-sector strategy - Deepening IFAD's engagement with the private sector (2011) have been utilized to ensure that the GTWDP puts to best use the financial, technical and knowledge products that IFAD has available. The project would supports investments to improve the quality and quantity of the upstream primary products and the semi-commercial poor farmers engaged in their production by making use of the Matching Grant Program. The MGP is planned to simultaneously or in an intricately woven manner also support the downstream investments. These include value-adding steps such as drying, packaging, cooling, branding, while also assisting in developing the market linkages for these through awareness and capacity building programs for all stakeholders.

### **III. Project implementation**

#### **A. Approach**

121. The project is designed to be demand-driven with communities' involvement and ownership expressed in the wishes and demands of the poor households, as evidenced during visits to the project area. The supported activities are menu-driven and have been selected provisionally, on the basis of the significant production potential of the area and available markets. Their final selection would be based on physical and economic feasibility. These activities that target improvement of the village communities' economy and livelihoods are intricately linked to improving climate change



adaptation capacity of the target smallholders while ensuring the rehabilitation and care of natural resources.

122. **Selection of the Project area.** The Project area has been identified by MFAL, and confirmed by MoD, to be poor with opportunities for substantial improvements in agricultural productivity and profitability. There are 11 districts, 212 villages with 32,098 households. Studies and assessments would be carried out in the first year of the project to identify location-specific investments, predominantly for fruits such as cherries, raisins and strawberries, and some vegetables such as tomatoes.

123. **Planning.** All detail planning of investments would be participatory, working up from the smallholding level, consolidating to the village and subsequently the district and province levels, in both provinces. This would ensure both complementarities along the VCs and optimization of project supervision resources in the rough project terrain.

124. The overall education and training of the population is relatively low and women as unpaid family labour are prevalent. The planning of activities would take these factors into consideration and contain relatively easy to acquire know-how, while exploiting as much as possible the inherent traditional knowledge of the local population about their resources. The planning of investments would ensure the equal involvement of all groups in the villages, including the women and youth. There would be activities that specifically target women to improve their participation in the local labour force as well as present opportunities for them to become financially more independent. The elderly would contribute as resource persons to benefit from their indigenous knowledge of traditional farming and land use e.g. in vineyard production. Their inputs are valuable regarding observed changes in the natural resource base and the weather patterns due to the location specific nature of their variability across the project area.

125. The resulting investment plans would be aggregated into AWPBs. They would be optimized to deliver the project's goods and services for improving productivity in small-scale agriculture and would match the diversity found in the agro-ecological and socio-economic conditions in each village as well as farmers' resources and needs. The AWPBs would ensure more efficient use of the available natural resources such as soil and water, as well as identify potential for improvements in the rangelands and their access. The use of energy saving technologies, in particular solar energy for electricity, would be promoted and incorporated into investments all selected from a menu of interventions.

126. The tools of the project include improving collaboration and cooperation between the poor small producers in order for them to benefit from economies of scale in both production and marketing. To some extent this collaboration is evident in the sharing of available water resources where multiple small farmers benefit from a single water collection pond and the investment costs are shared. The project would seek to build upon this inherent collaborative spirit through intensive training and education on the benefits of participatory grass roots farmers' organizations. The planning of activities and the subsequent allocation of project resources (also through the MGP) would give premium to small farmers requesting to benefit from these as voluntary formal or informal groups. The project would promote the crucial importance of collaboration in the shift from the prevailing individual-dominated semi-subsistence farming regimen to genuine farming-as-a-business where the role of organizing its impact on individuals' profitability is clearly understood.

127. The Ministry of Food Agriculture and Livestock (MFAL) would implement the Project. It would encourage collaboration and coordination across several government agencies in the project area. These include: i) the Konya Plains Project (KOP) Regional Development Administration, ii) the Regional Directorate of Forestry of the MFWA, iii) the Greater Metropolitan Municipality of Konya, iv) the Governors' Offices of Konya and Karaman (as İŞKUR, MONE), v) the Mevlana Development Agency (MEVKA), vi) IPA-RD Local Offices in Konya and Karaman, and vii) the provincial Chambers of Agriculture (TZOB), and, viii) the Chambers of Trade and Industry.

128. The KOP Regional Development Administration, under the MoD, is responsible for macro level planning, programming, surveying and coordinating for government investments in the provinces of

Aksaray, Karaman, Konya, Niğde and Nevşehir. It is responsible to plan, coordinate and monitor investments for improving the socio-economic situation in these five provinces, working closely with other government agencies. Its action plans dictate the sustainable use of natural resources, while strengthening the economic, human and social structures, and supporting urbanization and spatial development. Its links with the GTWDP are limited to information sharing regarding the off-farm infrastructure, particularly the pressurized tertiary irrigation networks that it is responsible to develop, and rural roads. The GTWSP would support on farm production where the KOP has made such investments.

129. The Regional Directorate of Forestry (RDF; MFWA) in Konya is currently implementing natural resource management projects in seven micro-catchments (MCs) in the upper Göksu sub-Catchment at about \$4.0 million each, all being in the GTWDP geographic area. Close collaboration and coordination between the GTWDP's thrusts and those of RDF would be ensured through the PPMUs in the PDAs. The RDFs approach is similar to that of the OGM in the MRWSP and implementation synergies would be easily established. The main investments under these small, MC-based, natural resource management projects (erosion control, afforestation, pasture improvement and water ponds for livestock) are based on agreements with local communities that in some districts coincide with those targeted by the GTWDP. Agricultural terraces made by RDF would be put into agricultural production with the support of GTWDP.

130. **Alternatives considered and reasons for rejection.** Three alternatives to the implementation arrangements decided were considered from two aspects: the role for IFAD in an U-MIC and the institutional needs and demands of mainstreaming project's modalities:

131. Any external CPMU recruited comprising contracted managerial staff was rejected. The GDAR has ample in house capacity to provide implementation oversight and management, including for the procurement and funds flow of the project, the total value of which over seven years is less than 10% of the annual operating budget of GDAR. The role of IFAD in the project is to also provide technical and knowledge support to develop the capacity of the extensive and well-functioning structure of MFAL. The project would improve outreach and effectiveness in the uplands of this structure by using new models and approaches, knowledge products and services; IFAD's global reach to mobilize required expertise and knowhow would assist. The mainstreaming of implementation management would also greatly benefit scaling-up by the MFAL elsewhere and in the implementation of the envisaged Phase 2 of the Programme. If required, the CPMU under GDAR would be reinforced through an externally recruited experienced Senior Accountant.

132. One PPMU (comprising wholly or partially contracted staff) covering both Konya and Karaman was rejected. Largely, the cadres of the PDAs, through their DDAs, would carry out field implementation at the beneficiary level. A single PPMU presiding over the two exiting PDA structures would add another layer to decision, information and funds flow and risks duplicating of or overlapping with the functions of the CPMU. The MFAL has established channels of direct communication, funds, and information flow through the PDAs in each province. An external structure established solely for the purposed of the implementation of a project risks being sidelined among the daily priorities of the individual PDAs. One unit responsible for two provinces established in either province would risk being rejected by the individual PDA staff and management and disrupt expected support from these PDAs staff. Furthermore, the beneficiaries, i.e. the smallholders, have well-established routines with the PDAs and DDAs and another intermediary structure would disrupt this routine and cause mistrust in both.

133. An external service provider such as UNDP, under a GSA to support procurement functions and funds flow (for the CPMU and/or PPMU), was rejected. This modality has been used with mixed results. While generally successful, sometimes delays due to UNDP's internal procedures have been experienced. It has been underlined by the GDAR that such an element would detract from the mainstreaming and learning-by-doing thrust of the project as anticipated in across all elements, including project management, and add another non-MFAL layer. Using national guidelines for small procurements are accepted by IFAD and larger procurement items would be handled by the CPMU

that has ample experience in IFAD procurement guidelines, also accumulated from working with UNDP in three projects.

134. The managerial capability of the individuals to head the CPMU and PPMUs would be assured through rigorous selection process conducted by the higher management of MFAL. The ToR(s) for the position(s) would be supplied in the PIM that would be in place at start up.

135. **Project Duration.** GTWDP would be implemented over seven years (2016-2022). The first year of implementation would predominantly dedicated to initial studies, surveys, gap analyses, demand assessments. Activities in the first year would nevertheless not exclude investment activities as long as they are supported with viable business plans. In the first year, priority would be given to the capacity building, awareness raising, sensitization and comprehensive training of all stakeholders on the approaches and opportunities in the Project. These activities would cover include all producers, farmers organizations, SMEs, women, the Yörük, and project staff at all levels ranging from the PDAs and DDAs to MFAL in Ankara. The main investments would be executed in years two through six of the project. The climate may impose constrains on the timetable; civil works and most agricultural activities are confined to the four–five spring/summer months.

136. **Phasing, Scaling up and Exit Strategy.** The borrower and IFAD are in agreement that the current tri-annual PBAS allocation system is not conducive to deeper interaction and long-term partnership and predictability. The project would benefit from being part one of a programmatic **approach with two projects phased over two overlapping PBAS cycles** (Figure 1). This approach fits well with the results of the UMICs Case Study on Turkey that was conducted by IFAD in early 2014. The approach is also in line with the multi-year Government plans and programs.

137. Prior to the cursory IFAD Project MTR, in the second year of the GTWDP, the client i.e. MFAL and IFAD would undertake thorough review and document lessons learned to date both in-country to provide guidance to the design of a second project as anticipated by the below programmatic approach. In order not to miss the IFAD 2016-2018 PBAS cycle, the project design of the second phase of the Programme would coincide with the third year of the GTWDP.

**Figure 1: Programme Phasing**

PROGRAMME PERIOD (about 9 YEARS / TWO PBAS CYCLES)									
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9
Prepare Phase I GTWDP (2015)	IY1	IY2	IY3	IY4	IY5	IY6	IY7		
	2016	2017	2018	2019	2020	2021	2022		
	Phase II								
	2016-18 PBAS Allocation	(prepare) Phase II Project	IY1	IY2	IY3	IY4	IY5	IY6	IY7
			2018	2019	2020	2021	2022	2023	2024

138. The second year of GTWDP also coincides with the post-mid-term outcomes of the MRWSP and lessons learnt would also be reflected into the design of the second phase of the Programme in view of: i) its inherently NRM nature, and ii) results of the synergy between MFWA and MFAL as anticipated in the GTWDP.

139. The scaling-up of the Project would be pursued in the phasing to extend a participatory integrated project approach east or west along the highlands, or in another region. The synergies planned in the GTWDP to integrate with the intensive ongoing and planned NRM investments of the OGM would be complemented with the income generation and value chain approach initiatives of the GDAR in the highlands.

140. The scaling up would further mainstream the SIP and MGP approaches at MFAL: (i) already successful in the DBSDP and SEDP projects (ii) tested in GTWDP upland areas of forest villages, while (iii) as part of the toolkit of the MRWSP become accepted by the MFWA, A collaborative effort between MFAL and MFWA would then be scaled up in other parts of country through government programmes embedded in MFAL and MFWA strategies. The results and knowledge generated from the implementation of the two projects would also serve to engage into dialogue with Government of Turkey on pasture management.

141. With regards to the exit strategy, the MGP is a contribution by the project for investing in machinery and equipment. The introduction of farming as a business for the upland producers would result in optimization of the land, water and labour resources available in the project area, both individually and collectively. Strengthening FOs through training and capacity building would enable longer-term and more stable contractual relationships with collectors, processors, exporters, etc. These factors are expected to last beyond the 7-year project period and spill over as lessons learned for enhancing income generation in upland forest villages.. The partnership between the producer groups and the private sector would be strengthened also as a result of improved knowledge management. The producers, SMEs and their associations would generate enough revenue and build assets to become bankable and engage in borrowing from Ziraat Bank (Turkish Agricultural Bank) or commercial banks when needed.

142. Phase 2 could target the forest villagers who want to maintain rural lifestyles while engaging in profitable agricultural production. An approach that blends the NRM aspects of the ongoing MRWRP and the new GTWDP's value chain thrust could be considered as part of the envisaged deeper interaction with Turkey where IFAD would draw from lessons learned from both projects to integrate rural income generation with sustainable and participatory NRM. These lessons would be stepping stones to strengthen the technical partnership thrusts of IFAD and Turkey in other countries while expanding the scope of on-going cooperation with TIKA.

143. **Private-Public Partnerships.** The investment atmosphere in Turkey is highly conducive to PPP. Government policy is key in promoting more inclusive business models and other incentives and Turkey has been a proponent of PPP since the early '80s. The current PPP portfolio is valued at about \$90 billion and ranges from irrigation and highways to airports and nuclear power plants. It has been key in attracting foreign and national private investors into previously public service domains.

144. Although the PPP model was formalized with the Law No. 3996 in 1996 for the Build-Operate-Transfer (BOT) modality but the Privatization of Electricity Distribution in 1984 was the first example. In 1988, the model expanded to the Turkish Highways Department and to the health sector in 2005. The operation of (almost) all airports are PPP-based. The tourism sector has received hundreds of millions USD under PPP investments, where the land is publicly owned. The Build-Operate-Transfer (BOT) modality has evolved to the Build-Own-Operate (BOO), and the Build and Lease (BL) model that is currently being scaled up in the health sector. A BL-based health complex of almost 4,000 beds servicing 50,000 patients with 8,000 staff is being built in Ankara at a cost of 890 million Euro, financed by an international consortium. With the exception of the judiciary and military, all sectors can benefit from PPP.

145. The majority of the irrigation in Turkey has been transferred to the beneficiaries, starting with the Participatory Privatization of Irrigation Management and Investment Project supported by the World Bank in 1997. Since then, 96% of the irrigation system has been transferred to the users through the Water Users Associations.

146. The agricultural sector remains ripe for PPP investments of any and all scales. Konya province is home to the "Torku" brand, developed by the Sugarbeet Producers' Association of Konya. Konya Şeker S.A. is the corporate entity behind the Torku brand. It currently has annual revenues of about 900 million TL. Along its diversification initiatives is the intent to invest in a 50 mw hydroelectric power plant on the Göksu River, in the project area.

147. It is a best-practice example of the PPP in the agricultural sector's integration with industry. It was founded by 17 agriculture cooperatives with 60,000 sugar beet farmers in the Konya plains. As the highest nationally-ranked ranked company from Konya (44th), Konya Şeker operates in food production as the 4th largest in Turkey. It has investments in any field that is related to farmers, including irrigation equipment and is a good example of a development model with its farmers' collective capital structure. Konya Şeker was established when the Turkish Sugar Industries began to be privatized in the '90s and the Konya sugar mill was bought by the Konya sugarbeet producers association.

148. There are no legal nor commercial impediments regarding the use, transfer or lease of any public investment or service to the private sector in the GTWDP area. Although limited opportunities for PPP exist in the GTWDP area, any such would be examined during the Baseline Study as well as the gap analysis and diagnostic studies conduct studies regarding all available public capacity for processing in the area and facilitate their gainful operation to the benefit of both the individual producers, FOs, SMEs and the potential operators.

149. There are two publicly owned (ORKÖY/OGM) cold storage facilities in the area that are dormant. After the diagnostic study that would reveal their shortcomings, investment opportunities would be outlined and expressions of interest would be announced, also at the local Chambers of Agriculture, Industry and/or Trade specifying the scale and scope of the need as well as the required qualifications and available support from the Project. Similar assessment would be carried out in Hadim, at the cherry collection facility that has been established by the municipality.

150. The knowledge management platform and related framework of the Project that is coordinated at the CPMU and PPMUs would ensure that decision makers, producers of all scales, including the FOs and associations are brought together with private operators identified by the MASp including intermediaries, processors, market outlets' representatives, etc ). At these fora, the parties would discuss the ways and means of identifying and enhancing the PPPs to benefit the small producers as well as the large producers.

151. **Inclusiveness and Empowerment.** The upland villages in the Project area are among the poorest in the region, dependent on semi-subsistent agricultural production supplemented with state and private welfare support. The farmers/producers are individualistic and have been reluctant to join forces and weak on collective action. The Project is oriented towards economic empowering of the productive poor in these villages particularly through generating awareness to organize. The benefits of improved agricultural productivity and productivity will empower communities to engage in a more commercialized production and hereby improving their livelihood.

152. Incentives for women inclusion: Proposals presented by FOs whose number include at least 30% women would have preferential consideration in the selection. Specific process for selection of beneficiary groups will be developed in the PIM building on the above principles, ensuring screening as an ongoing process.

## **B. Organizational framework**

153. The **Lead Agency** of the project would be the Ministry of Food Agriculture and Livestock (MFAL) located in Ankara. The overall management responsibility for the GTWDP would rest with the General Directorate of Agrarian Reform (GDAR of MFAL), again headquarter in Ankara. The mandate of the MFAL and GDAR in relation to the goals, objectives and activities of the proposed Project are appropriate.

154. Under GDAR, a Central Project Management Unit (CPMU) would be established. Based on the current matrix management structure of the MFAL, the Provincial Directorates of MFAL (PDAs) would be responsible for day-to-day implementation in the field with Provincial Project Management Units (PPMUs) would be established within each PDA. At the district level, the District Directorates of MFAL (DDAs) under the respective PDAs would provide support as needed.

155. As a long-term partner of IFAD in Turkey, the MFAL has ample experience and capacity in rural and agricultural development. The MFAL was restructured in 2009, shortly after the AKADP started, where the responsibility for externally funded projects has been shifted from the now-closed general Directorate of Agricultural Production (TÜGEM) to the GDAR, more specifically the Department of Land Reclamation and Irrigation Systems (DLRIS) within the GDAR.

156. The MFAL has field implementation capacity in place at its PDAs. The GDAR, located in MFAL, would manage all intra-governmental co-ordination, Project and Programme delivery and delegated financial responsibilities. In line with its mandates, GDAR has proven capacity to contract and manage private sector service providers. Its administrative competency has been demonstrated in the on-going AKADP and the recently closed DBSDP and SEDP. Its vision is clear with flexible internal management structures, strong technical cadres delivering well-proven agricultural production, land management and environmental services. It is responsible for the planning, delivery and monitoring of the MFAL support and subsidy program about 11 billion TL (about USD4.5 billion) in 2014. Its financial procedures are transparent and well monitored by the government's internal accounting bodies. Furthermore, the Department of Rural Development of GDAR implements the EU-financed IPARD grant program.

157. The MFAL has hosted eight successful IFAD projects and partnered with the Ministry of Forestry and Water Affairs (MFWA) in two World Bank-supported watershed rehabilitation projects. It is currently an implementation partner (along with the OGM and CEM among others) in the Coruh Watershed Rehabilitation Project (in the Eastern Black Sea Region) with a loan from JICA.

158. The GTWDP implementation arrangements take into consideration the programmatic nature of the first phase of a multi-year program. The institutional capacity to implement and manage projects at MFAL and/or GDAR, particularly donor-funded ones, would be duly strengthened and mainstreamed into daily operations. As such, there is no role foreseen for any externally recruited PMU nor support for procurement services (e.g. a General Service Agreement with UNDP) as has been the case in the past three projects. This is primarily due to the increased financial management and M&E capacity in MFAL as the outcome of the increasingly effective involvement of GDAR staff in the implementation of IFAD financed projects.

159. **A Central Project Management Unit (CPMU)** would be established within GDAR in Ankara to support implementation of the Project comprising a Project Manager, a Central Focal Point (CFP), a secretary/translator and five seconded experienced staff members responsible for procurement, M&E/Knowledge Management and Gender; a senior staff member to act as Central Focal Point. An expert Senior Accountant would be recruited locally to perform financial management and accounting duties. Technical services would be secured on an as needed basis from the various departments of GDAR and /or MFAL, such as irrigation, civil works, extension, research and agricultural economics.

160. The CPMU staff members are seconded from GDAR. The CPMU's primary functions would be: (i) to provide broad based project management support to GDAR in including planning, programming, budgeting, monitoring and documenting progress; (ii) translating experiences and lessons learned from implementation through the SC to the policy level at MFAL; and (iii) to report to the relevant levels at the Ministerial level and IFAD. The CPMU will take the lead in the procurement of all civil works, goods and services, and technical assistance that relate to the field activities.

161. Two **Provincial Project Management Units (PPMUs)** housed in the Konya and Karaman PDAs would oversee day-to-day implementation activities in their respective provinces in line with the decentralized implementation of GTWDP's activities. The PPMUs would be headed by the Field Implementation Managers (FIMs) seconded from within the ranks of senior PDA staff on the basis of MFAL/GDAR requests. Each PPMU would include an accountant, a procurement specialist, a Marketing Advisory Service Provider, gender/ community development specialist and M&E/knowledge management specialist. Technical subject specialists for horticulture, field crops, rural development and organization, livestock specialist would be available from the cadres of the PDAs. As needed,

additional thematic specialists (e.g. civil engineer, agriculture economist) would be seconded or contracted.

162. The principal functions of the PPMUs are: (i) to provide management support to the implementation at field level through the 11 DDAs in the Project area (7 districts in Konya and 4 in Karaman); (ii) to coordinate communication, planning, reporting and between the field and the CPMU; and (iii) to handle day-to-day management and implementation duties of the Project. A capacity assessment would be conducted by the CPMU regarding the available skills mix at the PPMUs and any shortcomings would be compensated with either externally recruited personnel or through training based on a Training Need Assessment (TNA). The ToRs of the CPMU and PPMU staff would be available in the PIM.

163. Eight multi-disciplinary Farmer Support Teams (FSTs), comprising specialists for field crop production, horticultural production and agricultural economy, would be assigned by the PDA to carry out extension services and maintain frequent contact with the resident and transient beneficiaries, including the Yörüks, as required by the GTWDP design. Each team will be responsible for one or more districts identified based on their number of assigned villages and the proximity of these to each other and the district centers.

164. The PDAs have cadres of multi-disciplinary extension staff that are based in the DDAs and residing mainly in the district centers. The selection and planning of project interventions and investments would be menu-driven based on the interactions of the FST with the beneficiaries. The menus would be developed by the PPMU with due consideration of the agro-ecologic specificities of each district that determine the crop pattern. The externally recruited, long-term, Marketing Advisory Services provider (MASp) would support the PPMU and FSTs for marketing information and knowhow, particularly regarding the operational challenges of well-functioning value chains.

165. **Strategic Partnerships.** GTWDP benefits from the practical experience of two on going IFAD-supported projects, the AKADP with MFAL and the MRWSP with MFWA. The GTWDP will pursue collaboration and experience sharing with the World Bank-initiated Integrated Basin Management (under preparation, with anticipated roles for MFAL and MFWA) and the JICA supported Çoruh Watershed Project hosted by MFWA, where GDAR is an implementation partner.

166. At an international level, the project's achievements are likely to be of interest to other countries working with rural poverty, horticultural value chains, climate-resilient agricultural production techniques and natural resources management as well as opportunities for PPP. To facilitate international exchange of experiences, provisions are made for funding of international networking, twinning arrangements, etc., under the heading of international study tours. The relationship between IFAD and MFAL would mature into a modality where collaboration could extend to projects beyond the borders of Turkey, such as in South-South programs where IFAD is collaborating with the Turkish International Cooperation Agency, TIKA. Currently TIKA finances a multitude of training and investment projects that are implemented by MFAL as well as MFWA.

167. The GDAR is responsible to implement the IPARD "Rural Development Investment's Support Program" with contributory grants that enable agriculture-industry integration where investments that provide added value, improve rural development and enhance farmer's livelihood by increasing their income are being supported. In this context, the GTWDP would pilot successful small-scale investments of the target beneficiaries that are expected to also provide inputs as raw materials to larger, downstream investments by others in areas such as processing, packaging, and warehousing.

168. The Project would contract a national MASp to assist in all aspects of the commercialization thrust of the elements of the project ranging from individual farmers to PDA staff. The contracting would be for the duration of the project, on the basis of QCBS starting as soon as practicable after start-up; resources have been duly allocated. The MASp would be free to associate with international service providers to improve its service delivery capacity. The ToT for the MASp would be detailed in the PIM at final design.

169. While the MFAL supports the small farmers to produce more of better quality, there is urgent need to guide both stakeholders regarding the realities of the market. The smallholders in Project area specifically and government staff almost universally suffer from lack of private sector notions – a case of the blind leading the blind - ranging from farming as a business to the importance of market information, competition, trading and negotiation skills, branding, promotion of production, etc. Furthermore the MASp would establish an in-house market information system at the PPMUs with actual prices on local and export prices, market trends. At a later stage product development and opening of new market channels would be part of the s provided by such a company.

170. The MASp would work under the oversight of the CPMU. It would be involved in the various studies, surveys and assessments and would assist in the development of the Business Plans for the benefices by providing assistance on an as needed basis to the PPMU. It would have staff ready to be fielded to assist the producers' enterprises, FSTs, and potential micro or small investors. The MAS would also provide hands-on guidance to FOs that require private sector orientation to commercialize their members.

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

### **Planning**

171. The investments would be implemented on the basis of Project Annual Work Plans and Budgets (AWPBs), with inputs from the SIPs of the identified value chains. Each FST would prepare in full collaboration with Project beneficiaries an Annual Work Plan (AWPs) relevant to the villages in their command area. These AWPs would constitute the primary, bottom-up, elements of the AWPBs where the costing of activities would be done by the PPMU. Subsequently, the respective PPMUs would review, cost and consolidate as Provincial-level AWPBs. The consolidated Provincial AWPBs would be reviewed and be incorporated into a GTWDP-level AWPB by the CPMU. The AWPBs would be finalized in accordance with procedures agreed with IFAD and detailed in the PIM. The AWPBs would be submitted to GDAR by the PM for review and formal approval in the Steering Committee and presented to IFAD for no objection.

### **Monitoring and evaluation**

172. The M&E system comprises both performance and impact monitoring. All M&E data would be disaggregated by gender and by age. The RIMS-based Logical Framework indicators combined with a selection of indicators derived from the TARBIL system shall form the basis of the Project's monitoring system. During the start-up workshops, one in Ankara and, given their proximity, one in the field at either the Konya or Karaman PDAs, further recommendations would be made on specific indicators and means of verification (MoVs). An early joint task of the M&E/Knowledge Management Officers at the CPMU and PPMUs would be to establish a Monitoring Plan including a matrix to identify data sources and periodicity of reporting for the agreed indicators. The PIM would provide guidance to both for implementing the Monitoring Plan.

173. The MFAL already has in place a robust, computerized system, now based on TARBIL, for tracking the government's agricultural support program in terms of the physical inputs, beneficiaries, production, etc. All data are entered into the system at the provincial level and form the backbone of the MFAL's general monitoring system. Thanks to exchanges between TARBIL and GTWDP M&E system, the capacity of MFAL to monitor and report on the GTWDP outcomes and impacts will be strengthened while also providing a viable platform to also to monitor other projects such as the JICA-supported Çoruh Watershed Project. This would also be an indicator for the success of the IFAD Knowledge Management platform approach.

174. The mainstreaming of the project's management into the operations of MFAL/GDAR through PMUs (CPMU and PPMUs) that comprise predominantly seconded staff would further enhance M&E capacity and render it more participatory, in terms of both process and impact on planning for future operations. Data collected for the purposes of the project would enrich the TARBIL database. The



outputs would be disseminated in project communities thus i) providing guidance to the farmers in production and marketing decisions, and ii) facilitating more participation from the community in reviewing assumptions for implementation outcome. This would facilitate the planning of interventions in Phase 2 of the envisaged programme as direct inputs from a unified M&E database.

### **Learning and knowledge management**

175. Continuous learning and KM would fully be integrated into the GTWDP and mainstreamed into implementation across all levels. The lessons learnt from ongoing and completed IFAD projects and consultations with stakeholders during the design missions would be used. Gaps and opportunities that have been identified would be addressed with comprehensive training in KM and M&E.

176. The project KM framework would inform the project learning agenda regarding the outputs, outcomes and impact defined in the GTWDP's LF. Strong links would be formed with the M&E system's outputs that entail products such as RIMS/TARBIL fact sheets and Training Needs Assessments for capacity building and methodological tools that integrate KM and M&E. Thematic knowledge products for KM methods and spaces (e.g. capacity building, learning and knowledge sharing events, Communities of Practice, South-South initiatives) would be developed and disseminated. These would target a wide range of stakeholders including beneficiary communities, development practitioners and policy makers.

177. Project staff would be trained in building effective learning and adaptation processes into the project M&E system and project management cycle. This would constitute an integrated process of rigorous M&E, effective learning and knowledge application. This approach of continuous performance enhancement driven by tailored capacity building would be adopted into the second phase of the programme.

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

178. **Governance and Financial Management Risks.** The country risk is rated as Medium. Transparency International's Corruption Perception Index ranked Turkey 74 of 175 countries in 2014 (down from 53 of 177 in 2013) with a score of 45 (down from 50 in 2013). The WB Governance Diagnostic Assessment 2014 for Turkey shows major transformation in the public sector management as a result of the reform initiatives, implementation challenges still remain and there are still areas where improvement is required.

179. **Financial Management.** To determine the project specific control risks a Financial Management (FM) risk assessment of the proposed project and its fiduciary arrangements has been completed. A detailed FM assessment was performed of MFLA GDAR (CPMU), Konya and Karaman PDAs (PPMUs). Financial Management assessments concluded that the project financial management arrangements and internal control systems would satisfy IFAD's minimum requirements to provide accurate and timely information on the progress of project implementation and guarantee the separation of functions through several levels of independent controls and rated the residual financial management risk as **Low**, after the implementation of appropriate risk mitigation measures to ensure accountability of funds.

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

181. Regarding **Financial Management Organization**, the CPMU will have overall responsibility for Financial Management of the Project and be supported by PPMUs in Konya and Karaman respectively. The CPMU and PPMUS will be established and housed within existing Ministerial and Provincial Directors bodies. Systematic interventions of Internal controllers and auditors will allow for strong internal controls. The CPMU will be staffed with Senior Accountant recruited competitively and PPMUs through secondment of an accountant from within the PDAs.

182. **Accounting and financial reporting arrangements.** The Project will adopt accounting procedures and policies consistent with international accounting standards (cash basis) and

Government requirements. Accounts and financial reporting will be consolidated at the CPMU, which will also be responsible for assurance that funds have been used for the purposes intended. Eligible expenditures from IFAD Loan and Grant resources will be executed by CPMU. PPMUs will be responsible for their respective expenditures from Counterpart Government of Turkey resources and report on a monthly basis to the CPMU. Consolidated monthly and quarterly financial statements will be furnished to IFAD. The financial statements will be in formats acceptable to IFAD and will include inter alia a Sources and Uses of Funds Statement, with classification of expenditures by categories and components, sub-component and comparisons against approved budgets.

183. The project will use Government of Turkey Public Expenditures System developed by MOF to perform all payments from Government Counterpart Contribution, IFAD Loan and IFAD Grant. Before disbursement begins, the CPMU will develop a web-based management information system using in house IT expertise in order to meet IFAD financial reporting and withdrawals requirements, monitoring and evaluation, procurement, etc.

184. **Budgeting.** Budgets, facilitated from the beneficiary level, will include all activities for the year, segregated by quarter and by financier. Consolidation and preparation of the AWPB for approval will be under the purview of the CPMU. To facilitate transparency in the budgeting, and facilitate implementation and monitoring of the budgeted activities, approved AWPBs will be accessible to all project staff on a MFAL Strategic Planning System.

185. **Disbursement arrangements and Flow of Funds.** Two Designated Accounts will be opened for the project at the Central Bank of Turkey in EUR for IFAD Loan and IFAD Grant separately. with an authorized allocation of approximately 12 months of Project expenditure, Replenishments to the DA will use the impress modality. Withdrawal applications will be prepared by the CPMU every 3 months or when 30% of the advance has been expended, whichever occurs earlier. Details of the disbursement arrangements, including the amounts advanced to the DA, will be stated in the Letter to the Borrower/ Recipient.

186. **Counterpart contributions.** Counterpart contributions from Government of Turkey will be applied to meet eligible expenditures under different categories and components. These will flow through single Treasury/MoF code to CPMU and PPMUs in advance, every year.

187. **Internal controls and internal audit.** Given geographical spread of the Project, Internal Audit will be carried periodically by the MFAL Internal Audit department and in accordance with inter-ministerial audit work plans to ensure funds received by intended end-beneficiaries. Staffing levels are commensurate with appropriate segregation of duties. A Project Implementation Manual is a disbursement conditionality. During the quarter one of project implementation, CPMU Senior Accountant will undertake IFAD e-learning training on IFAD financial management and fiduciary controls. A Complaints handling system for Project communities will be prepared and implemented according to the PIM and monitored by the CPMU.

188. **Audit Arrangements.** Annual Project financial statements will be audited by the Treasury Controller that currently carries all WB and IFAD projects external audits, in accordance with International Standards on Auditing (ISA) under a TOR cleared by IFAD.

189. The Project will carry out implementation in accordance with the 2005 IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations and the Prevention of Corruption and Economic Offences Act No.5 of 1999 which established the Directorate on Corruption and Economic Offences (DCEO). Appendix 7 provides more detail on financial management and disbursement arrangements

190. **Procurement Assessment.** The Public Procurement Law (PPL) was adopted in Turkey in 2002 in line with EC Public Procurement Directives and has undergone several changes. With the recent amendments, further alignment with the principles of the EU Directives (Directives 2004/17/EC, 2004/18/ EC and 2007/66/EC) has been achieved. Initiatives such as advance contract notice, standstill period, framework agreements; dynamic purchasing system, electronic auction and e-

procurement platform have been introduced. The complaint review system, contract award announcement procedures and tender evaluation criteria have been revised. Time limits for the review of complaints by the Public Procurement Authority (PPA) have been shortened.

191. **The Public Procurement Authority (PPA)** under the Ministry of Finance is recognized as a stable and strong institution and is credited with having largely helped to establish a modern public procurement system. IFAD undertook an assessment<sup>31</sup> of the institutional capacity of the GDAR, which will be responsible for managing and overseeing project-related procurement. Discussions with World Bank and UNDP staff during the mission's field work confirmed that the required capacity is available at the MFAL. In terms of Turkey's overall procurement capacity, recent assessments have been made under the OECD-funded programmed "Support for Improvement in Governance and Management" (SIGMA) who found: that the current PPL "is generally well-structured, with a natural division between the various phases in the procurement process."

192. The project may include large TA procurements (e.g. Marketing Advisory Services) that may need collaboration of the CPMU with different specialists in the preparation of the ToRs and evaluation of the tenders. The estimated complexity of the contracts may risk delaying in the procurement activities that would be offset by detailed description of the process in the PIM and training of CPMU staff in IFAD procurement rules.

193. Under the PPL, investment projects financed by an international agency are not required to follow Turkish procurement procedures. However, based on this assessment, national procurement procedures will be followed in most of the cases – those deemed consistent with IFAD procurement guidelines and Procurement Handbook of September 2010 – with appropriate methods to be determined during procurement planning in accordance with the thresholds set forth in this document. The GDAR's procurement experience is mainly related to civil works, goods and equipment with limited experience in Consultancy Services. In addition to the intensive training IFAD plans to carry out at the start-up of this Project, IFAD Guidelines will be followed for the procurement of technical assistance and specialists.

194. According to the assessment's findings the GDAR's procurement practices appear to be well organized at the central and the regional level. Specialized procurement training will however be necessary to develop the requisite skills and familiarity with IFAD procurement procedures and documentation.

195. **A Grant Implementation Manual** would be prepared to facilitate their utilization and monitoring of the matching grants that would be made available for the on-farm investments of the smallholders and enterprise investments in value chains by SMEs or FOs. The Manual would describe simplified procedures and any additional attention required to meet IFAD's fiduciary procurement responsibilities. The SEDP, DBSDP, AKADP and MRWSP all have matching grant elements the Manuals of which would be used as guidance in the preparation of one for the GTWDP.

196. All bidding documents for the procurement of goods, works and services shall be prepared by the CPMU/PPMUs specialist(s) as required. At the provincial level, the responsible specialists would prepare the procurement documents under the guidance of the CPMU that would clear all procurement requests before any action is taken.

## **E. Supervision**

197. The GTWDP would be supervised directly by IFAD. Supervision and implementation support would be based on IFAD's operational modalities and practices, including loan and grant administration and Project implementation support. All such support would be a continuous process with frequent communication and engagement with the MFAL, the CPMU and other relevant stakeholders.

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<sup>31</sup> Desk reviews of literature and assessments from WB; Interviews with GDAR staff and PDA staff and discussions with WB Country Office staff.

198. The first implementation support mission would take place soon after project's start-up and would include an M&E specialist. The frequency and composition of subsequent supervision and implementation support missions would be determined based on implementation requirements or requests by GDAR. There would be at least one full-fledged annual supervision mission complemented by short and appropriately focused follow-up missions.

An inception review will be launched after the first 18 months of implementation. At that stage the Project will have gained sufficient experience from the capacity built with the smallholders, success of the thrusts of the value chains and linked investments and the establishing of modalities for physical and socio-economic monitoring. The mission will assess the adequacy of institutional structures within GDAR (CPMU and PPMUs), and the efficiency of the FSTs as the cornerstone of introducing new production modalities to the Project area. The timing of this review must allow for timely adjustments of Project modalities and activities to reach Project targets at outcome and objective level.

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

199. At the Goal and Development Objective level the main risks relate to poverty loosing priority in Turkey and macroeconomic instability. All of Government's and consequently the MFAL's development priorities as outlined in the national and regional development plans and programs are geared to reduce income disparity across and within regions as well as provinces over the long term. The project area specifically suffers from such disparity, being in the uplands of Konya and Karaman provinces. On the other hand, the prospects for continuing economic growth remain sound, with Turkey being a politically stable upper Middle Income Country. Furthermore, despite spotty stagnation, the world financial situation is currently on the rebound after the 2008 crisis. Turkey continues to move towards EU accession and the adoption of measures to meet required technical and administrative standards for trade and to converge with stringent environmental protection protocols are ongoing.

200. At the output level, there is substantial room for improvement for the project area producers to integrate into existing and newly developing value chains. The area has high development priority as evidenced also by the new highway links to the Mediterranean coast for better market access and high-speed railway links with the western parts of the country for more efficient movement of people and services.

201. The project has anticipated any shortfall on the implementing agencies capacities to provide market-oriented information and capacity building by planning for the long-term contracting of a Marketing Advisory Services consultancy to enhance the private sector orientation of all stakeholders, including government. Although the subsidy program is large, it does not distort endeavors of private sector operators. The disruptions to market discipline are the same as for any EU member state.

202. Contrary to other geographical areas where IFAD has worked in Turkey, mostly as hardship postings for state employees or areas of difficult access for the private sector, the GTWDP area suffers from none of these, being close to large urban areas. Most of the staff remains over five years, barring unforeseen circumstances. In fact, as far as rural development in Turkey is concerned, few areas carry such little risk of staff turnover due to location.

203. The planned investments would improve the climate adaptation capacity of the target producers. Resilience would be improved by training in agronomic practices and awareness-raising on natural resource management geared to maximize their income from the prevailing climate. This would obviously improve their capacity to cope with future negative impacts. Innovations such as IPM, vegetable production under cover, drip irrigation as well as more efficient methods for water harvesting in small ponds and training in rangeland management would further improve climate resilience.

204. The products of the area are unique due to the agro-ecology of the region, specifically the cherry that is the last to enter the markets in Turkey. The dried grapes have traditional well-established markets. Furthermore, as indicated above, a full time, long-term Marketing Advisory Services provider would be engaged to ensure most up-to-date market information that would allow

the producers to hedge anticipated fluctuations, such as competition from other Turkish producers or other countries.

## IV. Project costs, financing, benefits and sustainability

### A. Project costs

205. The Project is forecast to total USD 25 million of which USD 16.53 (or 71% of the total) will go to finance Component 1: Improved Agricultural Productivity and Natural Resource Management, USD 4.62 million (or 20% of the total) to finance Component 2: Market Access Enhancement & Value Chain Development and USD 1.97 million (or 9%) for Component 3: Project Management Unit.

206. The IFAD loan will fund 71% of total Project costs, of which 68.5%, 83.7% and 70.8% will go to fund component 1, 2 and 3, respectively. An IFAD grant of USD 400,000 will be used to finance technical assistance and study tours in component 2, which equates to 1.2% of Project funding. The Government contribution will be used to finance taxes and duties as well as 15.7% of component 1, 2.1% of component 2 and 14.1% of component 3 costs. Approximately USD 2.85 million (or 11.4% of the total) will be provided by the primary beneficiaries within the project area, mainly as contributions in small-scale agriculture investments.

**Table 2: Project Cost by Component**

Göksu-Taşeli Watershed Development Project  
Components Project Cost Summary

	(TL Million)			(US\$ Million)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
1. Agricultural Productivity and Natural Resource Management	47.06	0.04	47.10	16.51	0.01	16.53	-	71
2. Market Access Enhancement and Value Chain Development	13.17	-	13.17	4.62	-	4.62	-	20
3. Project Management Unit	5.63	-	5.63	1.97	-	1.97	-	9
<b>Total BASELINE COSTS</b>	<b>65.85</b>	<b>0.04</b>	<b>65.89</b>	<b>23.11</b>	<b>0.01</b>	<b>23.12</b>	<b>-</b>	<b>100</b>
Physical Contingencies	2.79	-	2.79	0.98	-	0.98	-	4
Price Contingencies	2.57	0.00	2.57	0.90	0.00	0.90	-	4
<b>Total PROJECT COSTS</b>	<b>71.21</b>	<b>0.04</b>	<b>71.25</b>	<b>24.99</b>	<b>0.01</b>	<b>25.00</b>	<b>-</b>	<b>108</b>

### B. Project financing

207. The total investment and incremental recurrent project costs, including physical and price contingencies, are estimated at USD 25 million (TL 71.25 million) over a seven-year period from 2016 to 2022. IFAD financing would comprise a loan amounting to USD 17.8 million, as well as USD 400,000 in grant funding from IFAD, contributions from the Government in the form of USD 3.24 million from its budget and USD 0.6 million from foregone taxes. A beneficiary contribution of USD 2.88 million is envisaged. Beneficiary funding will cover counterpart contributions towards grant funding from Component 1 and 2.

208. The Government will forego on taxes and duties related to any programme-related inputs that involve external sources of financing associated with IFAD financing. Any future changes in the rates and/or structure of taxes and duties would have to apply to the Programme. The summary table of project costs by financiers is presented below.

**Table 3: Project Costs by Financiers**

	Components by Financiers (US\$ '000)														
	Taxes		Government		IFAD		IFAD Grant		Beneficiaries		Total		For. Exch.	Local Taxes	Excl. Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
1. Agricultural Productivity and Natural Resource Management	575.09	3.2	2 852.44	15.7	12 474.17	68.5	83.62	0.5	2 226.23	12.2	18 211.55	72.8	14.50	15 865.00	2 332.06
2. Market Access Enhancement and Value Chain Development	0.00	-	100.50	2.1	3 962.47	83.7	41.22	0.9	632.64	13.4	4 736.83	18.9	-	4 133.84	602.98
3. Project Management Unit	33.12	1.6	289.98	14.1	1 453.36	70.8	275.16	13.4	-	-	2 051.62	8.2	-	2 018.50	33.12
<b>Total PROJECT COSTS</b>	<b>608.22</b>	<b>2.4</b>	<b>3 242.92</b>	<b>13.0</b>	<b>17 890.00</b>	<b>71.6</b>	<b>400.00</b>	<b>1.6</b>	<b>2 858.87</b>	<b>11.4</b>	<b>25 000.00</b>	<b>100.0</b>	<b>14.50</b>	<b>22 017.34</b>	<b>2 968.16</b>

### **C. Summary benefits and economic analysis**

209. The overall project analysis suggests an EIRR of 17% over twenty years. The gross value of production forecast shows an increase of approximately 50% from the 'without the project' situation, while outflows are a mere 30% or so, including labour. In addition to the quantified benefits described above, the GTWDP is expected to generate a number of benefits that would be difficult to evaluate in monetary terms.

210. The project's contribution to economic welfare is derived from: increased quantity and quality of market-oriented production, better market access, and higher prices due to branding and employment resulting from the investments along the value chains. It is difficult to quantify and estimate the net benefits from reduced water use through drip irrigation, climate change resilience, natural resource rehabilitation, intensification and diversification of farming systems, and employment generation.

### **D. Sustainability**

211. The project is designed to enhance the sustainability of the investments. These include enhancing the quantity and quality of the crops in the area as well as providing assistance for modern marketing (including branding) and market information services. The introduction of farming as a business for the already semi-commercial producers would result in optimization of the land, water and labour resources available in the project area, both individually and collectively. Strengthening farmer organizations through training and capacity building would enable longer-term and more stable contractual relationships with collectors, processors, exporters, etc. These factors are expected to last beyond the 7-year project period. The partnership between the producer groups and the private sector would be strengthened also as a result of improved knowledge management.

212. In addition, the project, through the provision of business advisory services, would expand the farmer outreach to a variety of support and investment programs that are in place, financed from the national budget, EU grants, and other sources.

## Appendix 1: Country and rural context background

1. Turkey, an **upper-middle-income country** with a population of 77.7 million and a GDP of US\$820 billion<sup>32</sup>, is a European Union accession candidate. It is a member of the OECD and the G20, and an increasingly important donor to bilateral Official Development Assistance (ODA). Turkey has a functioning market economy. In 2012, it had a GDP of EUR 613 billion and a GDP per capita of EUR 8208.<sup>33</sup>

2. Gross National Income (GNI) is almost US\$11,000. Countries with similar GNI/capita (9000-7000 USD) are Mexico, Belize, Lebanon, Argentina, Belize, Brazil, Gabon, and Mauritius; Mexico and Brazil are often categorized in the same groups. While the effects of exchange rate fluctuations and changes in macroeconomic parameters may have moved the GNI a few percentage points, currently the country clearly remains in the upper MIC group (UMICs).

3. After the post-crisis rebound in 2010–11, economic growth in Turkey has moderated, with rising concerns over persistent external imbalances. Since 2014, growth has lost momentum. Policies to hold back domestic demand in the face of a large current account deficit, increased volatility in capital flows and political uncertainties led to a sharp deceleration in private consumption and investment. This was offset to some extent by a pick-up in exports. In the context of serious regional geopolitical tensions and the sluggish recovery in Europe, exports are projected to be subdued and GDP growth to be relatively weak by Turkish standards, at 3¼ per cent in 2015 and 4% in 2016. The current account deficit is set to stay above 5% of GDP, and large short-term foreign debt refinancing needs make Turkey vulnerable to shifts in international investor sentiments<sup>34</sup>.

4. **Economic growth relies on foreign capital inflows** to finance investments and growth. The country's large current account deficit (CAD) and the composition of its financing remain critical concerns and have been a cause of volatile growth in the past. While the economic outlook for 2013 has moderately improved, Turkey's medium term challenge is to increase productivity and competitiveness and reduce the reliance on foreign savings to make growth less volatile and more sustainable. Turkey's total external financing requirement over the next 12 months eased to \$210 billion (24 percent of estimated GDP)<sup>3</sup>.

5. The country has already complemented sound macroeconomic policies with structural reforms to reduce the role of the state and improve the business environment for private investments. Between 2002 and 2007, private investment was one of the main growth drivers, around half of the average annual growth rate during this period. However, since 2012, private investment has been subdued. This has constrained growth and persistent investment weakness could weigh down on the economy's potential. The Government's announced twenty-five Transformation Programs provide an opportunity to regain the momentum on structural reforms and signal the government's commitment to a level playing field for all investors. Moving beyond announcements to implementation will be critical<sup>35</sup>.

6. The EU accession process has been a significant anchor for reforms in Turkey, but progress has slowed in recent years. Turkey has a deep-rooted, albeit complex relationship with the EU. Despite Europe's economic difficulties since the global economic crisis, the EU is Turkey's largest economic partner, accounting for around 40 percent of Turkish trade. However, there remain issues regarding Turkey's commitments under the Customs Union (CU) and technical barriers to trade. Turkey has benefited significantly from deepening integration with the EU through the growing sophistication of both exports and imports and access to financing. Accession negotiations began in October 2005, but progress has slowed in recent years in the face of a number of political obstacles.

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<sup>32</sup> World Bank, October 2014. Turkey Country Program Snapshot.

<sup>33</sup> European Commission, August 2014. Instrument for Pre-accession Assistance (IPA II)

<sup>34</sup> OECD November 2014. Turkey Economic Forecast Summary

<sup>35</sup> World Bank December 2014. Turkey Regular Economic Note

Both sides are making efforts to regain momentum. Following the June 2011 elections, the Government upgraded the institution that oversees EU accession into the new Ministry for EU Affairs. In 2012, Turkey and the European Commission (EC) launched a “positive agenda” to highlight areas of common interest and to advance economic integration with practical steps<sup>36</sup>.

7. Turkey's business sector is a source of strength for its economy and the agent of its structural transformation. Between 1990 and 2009, employment in Turkey's agricultural sector fell by 24 percentage points, faster than in most emerging markets, including China. At the same time, employment in industry increased by almost 5 percentage points, in contrast with the experience of most of Latin America and Eastern Europe. The dramatic shift of resources out of agriculture into industry and services is at the heart of productivity gains in Turkey. The country has been an early pioneer in public private partnerships (PPPs). In the 2000s an environment was created for the effective mobilization of the private sector based on creation of independent regulatory agencies, the introduction of cost-reflective pricing, long-term concessions for ports and airports and privatization of strategic assets such as Turk Telekom, power generation and distribution.

8. A major medium-term challenge for Turkey is to boost the participation of its youth and women in the labour force. Despite notable success in job creation in recent years, almost half of the Turkish working-age population (WAP) does not enter the labour market, mostly due to the low labour force participation (LFP) rate of women, which is around 30%, less than half the OECD average of 65 %. Labour market rigidity and high costs constrain job creation and arguably contribute to informality, which remains high in Turkey despite declining over the past decade. The Government has prioritized job creation in the recent Tenth Development Plan, especially among women and youth, and has recently approved the National Employment Strategy<sup>1</sup> In 2014, despite strong job creation, unemployment increased as the labour force expanded rapidly. The sharp increase in the labour force reflects both demographic change and increases in labour force participation among women, both of which are expected to continue and contribute to raising Turkey's growth potential over the medium term.

9. With rapid economic growth after the 2001 crisis, Turkey's social outcomes have improved. Poverty decreased from 44% in 2002 to 21% in 2012. On the other hand, the latest Poverty Study by TÜİK (2014) regarding the current purchasing power parity (SPG) indicates 2013 ratios for poor both in urban and rural areas based on two different poverty lines for: i) poor in urban areas: 0.64% based on \$4.3-a-day poverty\_line, and 0.02% based on \$2.15-a-day poverty line, and ii) poor in rural areas: 5.13% based on \$4.3-a-day poverty line and 0.13 % based on \$2.15-a-day poverty line.

10. **Regional income disparities remain.** The imbalances in socio-economic structure and income level across both rural and urban settlements and across regions in the country persist. Since 2000's, the regional development policy in Turkey, is transforming to include **Internal migration**<sup>37</sup>. It is a major migratory pattern for Turkey. Movements are mainly from remote eastern villages to urban centers in western provinces. Internal migration dynamics predominantly affect young women and men who are involved either as direct decision-makers or as migrating family members. The 15-29 age group accounts for 55 per cent of internal migrants.

11. **Internal migration continues.** It is a major migratory pattern for Turkey. Movements are mainly from remote eastern villages to urban centers in western provinces. Internal migration dynamics predominantly affect young women and men who are involved either as direct decision-makers or as migrating family members. The 15-29 age group accounts for 55 per cent of internal migrants.

12. Rural-to-urban migration in particular is a young-age phenomenon, which impacts young men and women and young families with their children. Istanbul is the destination city for 30.3 per cent of the population migrating from Turkish villages. Although youth unemployment is higher in urban areas, the hope of finding a job is still the main driver of rural-to-urban migration. Other main reasons include improving living standards and finding better cultural and physical infrastructure in the cities.

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<sup>36</sup> World Bank, October 2014. Turkey Country Program Snapshot.

<sup>37</sup> ILO 2012. Youth Employment and Migration: Country Brief Turkey (unpublished)



Environmental deterioration (drought, floods, salinization of agricultural land, etc.) and decreases in agricultural output are also determinants of rural-to-urban migration. Education purposes can also push them to go and settle in bigger cities.

13. Urban-to-urban migration accounts for 70 per cent of all internal migration. Istanbul, Ankara and Izmir are the top destination cities, with Istanbul alone receiving 17 per cent of all internal migrants. Given that urban-to-urban migration flows are predominant and that education levels are higher in cities, the educational level of internal Turkish migrants is higher than the average level of education across Turkey. Only 7 per cent of internal migrant youth are illiterate and young migrants from rural to urban areas comprise the less-skilled component of labour force participation.

14. As regards internal migrant women, their education levels are higher than those of the non-migrant female population. Their employment rate is also slightly higher than that of non-migrant women. However, rural young women who have been unpaid family workers in agriculture generally stop participating in the labour market when they move to urban areas.

15. Urban labour markets cannot absorb these internal migration flows and internal migrants cannot easily gain access to formal employment once settled in their destination cities. As a consequence, all internal migrants are somewhat involved in the informal sector and face economic and social integration problems. New cultures of poverty and new survival strategies have emerged among those migrants who live on the margins of urban life.

16. In the 9th Plan period (2007-2013), despite the rise in agricultural employment, rural poverty remained significant mainly due to the fact that agricultural employment is largely in subsistence farming enterprises that suffer from underemployment. The problems of these enterprises related to size and marketing prevent them from earning sufficient and regular income, and this triggers **rural poverty** and **internal migration**. In order to deal with the potential decline in agricultural employment, increasing non-agricultural employment opportunities and employability of rural labour force in non-agricultural sectors turns out to be even more important. In this context, during the 2007-2012 period, share of rural labour force with at least high school degree increased from 18% to 18.2%. The Tenth Development Plan (2014-2018) underlines that the risks associated with population decline and aging have been increasing in rural areas, where there is significant divergence between remote and integrated areas in terms of their relation to cities. Thus, enrichment of policies and implementation approaches for rural areas; and development of an approach that does not limit policy design and implementation to only villages and their attached settlements, is needed.

17. **Rural population decreasing.** The absolute decrease in rural population that has been continuing since 1980 was 23.3% in 2011 and has reached to 8.25% in 2014<sup>38</sup>. The major reason for such a sharp reduction is the new Metropolitan Law enacted in 2012 that transformed 13 city municipalities into metropolitan municipalities. With this Law, about 16.000 villages and towns lost their legal standing as separate entities and have become neighborhoods within the metropolitan borders. The Tenth National Development Plan (2014-2018) underlines that the risks associated with overall population decline and aging have been increasing in rural areas, where there is significant divergence between remote and integrated areas in terms of their proximity to urban areas and cities. Thus what appears to be needed is an enrichment of policies and implementation approaches for rural areas and the development of an approach that does not limit policy design and implementation to *only* villages and their attached settlements.

18. **Gender.** According to the Gender Inequality Index 2013 (GII), Turkey has a value of 0.36, ranking 69 out of 149 countries. On the other hand, according to the Global Gender Gap Index 2013, the country is again the last among the European Union countries. When these two indicators are considered, it is obvious that Turkish women still experience inequalities. Women's participation in labour force is at around only 25.4%<sup>39</sup>, which puts the country below all other OECD members and many developing countries worldwide. These rankings are driven by the considerable gender disparity

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<sup>38</sup> <http://www.nufusu.com>

<sup>39</sup> TÜİK 2014. Newsletter No.16007. 2014 Household Labour Survey

in Turkey with respect to “economic participation and opportunity” and “political empowerment”. However, as families continue to move from the rural to urban areas and farm workers became housewives, female employment has been improving since the late 2000s, after decades of decline of women in the labour force participation rate. Younger and better educated cohorts of women benefit from improved employment prospects in Turkey’s growing services sector and employment rates have also risen among middle-aged women as falling family sizes and improved household amenities create opportunities for them to return to the labour market<sup>40</sup>. Since 2010, amendments were made in laws regarding civil servants and labour with the goal of increasing the number of women in the workforce through strategies to help balance work and family life. The discrepancies between standards for female workers and civil servants (as in the duration of paid maternity leave) were removed. On the other hand, the situation of women in the fields of health and education has been rapidly improving. Turkey’s Industrial Strategy 2011-2014 and Small and Medium Enterprise Strategy 2011- 2014 are also geared to support greater female employment. Women’s participation in political decision-making, while improving, remains limited with 14.4% of the Parliament being female. Women are also not well represented in high-level positions at universities and in the civil service in general. While female academics are fairly well represented in Turkey at about 41%, men typically hold the higher-level positions at universities<sup>41</sup>.

19. **Rural women.** Rural women have long had an important role in Turkish agriculture. The latest statistics<sup>11</sup> indicate women accounted for slightly less than half of the agricultural labour force (44%). As it is the case in many countries, women’s contribution is not well recognized to the extent that society, and women themselves, perceive their work as women’s/wifely duty rather than as an economic contribution. For rural women, moving from unpaid work in agriculture to becoming full-time housewives (or students) is perceived positively by rural households is regarded as a rational life choice. This socio-economic phenomenon is regarded in Turkey as the process of young/rural women becoming more middle class.

20. Ratio of females changes over the years due to: i) the developments of mechanization in agriculture; ii) changes in the cropping patterns and increase in labour-intensive crops; and iii) extent of seasonal (temporary) migration of males to the urban areas.

21. Employment and participation in rural areas is still driven by agricultural employment and especially among women. The 2014<sup>9</sup> statistics indicate that females’ share in labor force in the population of the “15 and over age group” is about 30% and their share in those who are employed in agriculture is 44%.

22. **Problems of rural areas are multi-faceted** particularly in less developed regions and persist despite some improvements. These include problems of human resources (poor level of education and low skills), ineffective institutional structures including farmer organizations (cooperatives, producer unions etc.) needed to support rural development, highly scattered settlement patterns in some regions, insufficient investments to develop and maintain physical, social and cultural infrastructure, high rate of hidden unemployment, insufficient diversification of agricultural and non-agricultural income generating activities resulting in low incomes and relatively low quality of life for rural population. This triggers inter- and intra-regional migration from rural to urban areas.<sup>5</sup> The National Strategy for Rural Development (2014-2028) (NSRD) envisages the development of rural economy and improving employment opportunities. In order to achieve this, the Strategy particularly emphasizes that the farmer organizations, technology and innovations, agricultural extension, land consolidation, agro industry in rural areas, diversification of rural income and training of women and youth for micro-businesses.<sup>42</sup>

23. **Rural labour force is predominantly employed in agriculture sector.** In the 2007-2012 period share of agriculture in rural employment was around 61%. While non- agricultural employment increased by 600,000, agricultural employment increased by 1.1 million in rural areas. During this

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<sup>40</sup> World Bank December 2014. Report No.90509-TR: Turkey’s Transitions

<sup>41</sup> World Bank 2012. Towards Gender Equality in Turkey

<sup>42</sup> IFAD May 2014. Engagement of IFAD in MICs: Turkey Case Study

period, despite the rise in agricultural employment, rural poverty remained significant mainly due to the fact that agricultural employment is largely in very small farming enterprises that suffer from underemployment.

**24. Agriculture is no longer the main driver of the economic growth.** The agricultural sector had traditionally been seen as the major contributor to the country's GDP provided only 9% of the GDP in 2012. Although this displaced the sector from being the main driver of economic growth, it still maintains its importance in rural development, employment (particularly for women), export and manufacturing sector. Turkey currently is a regional hub for the production, processing and export of foodstuffs to large European and Middle Eastern markets<sup>43</sup>. Its agricultural diversity and amenable climate allow it to produce a sustainable supply chain of raw inputs for its processing industry, facilitating its status as a large net exporter of food and beverages. However, the sector still has serious shortcomings. Turkish agriculture has a dual face with farmers who are: i) commercialized, use the latest technologies, have links with a wide range of domestic and international information sources, acutely aware of global trends and consumers' preferences, interested in innovations and fully integrated into national and international markets; and, ii) resource poor, engaged in subsistent or semi-subsistent farming, conservative, do not consider farming as a business. It is estimated that about 1/3 of the farmers who are registered in the National Farmer Registry System are in the first segment and concentrated mostly in the Marmara, Aegean and partly in Mediterranean, Central and South Eastern Anatolia. The second segment concentrated in regions and areas that have limited agricultural resource base and relatively disadvantaged in terms of climate and affected by rough topography (mountainous). This segment struggles with small farm sizes and consequent lack of economies of scale with outdated production techniques, low productivity and poor quality that disable them from being integrated to the markets. Furthermore, they are more vulnerable to unfavorable weather conditions and climate change.

**25. Horticultural production is the leading sector of Turkish agriculture.** The availability of diverse and amenable ecological conditions enables the country to produce all temperate, most sub-tropical and some tropical species and sustains a reliable supply chain of raw inputs for its processing industry, thus facilitating the country's status as a large net exporter of food and beverages. Since late '90's, developing retail chains have triggered the growing of the processing industry as well as export possibilities where the number of greenhouses and vegetable production have shown a rapid increase. The country is the World's third largest exporter of fruits and vegetables, after the United States and the EU. Currently it is a regional hub for the production, processing and export of foodstuffs to large European and Middle Eastern markets. The total annual fresh fruit and vegetable (FFV) production is 46 million tons: 17 million tons of fruits and 29 million tons of vegetables<sup>44</sup>. The major problems of the sector are: i) production on small land parcels resulting in small volumes with variable quality, ii) below capacity and partial use of modern enterprises due to seasonality as well as locality of production, iii) poor awareness about good agricultural practices (Global GAP), quality standards and certification, iii) marketing, and iv) lack of branding

**26.** The volume of fresh fruit and vegetable (FFV) exports amounted 774.407 tons and 1.1 million tons, respectively in 2014<sup>45</sup>. According to TUIK<sup>46</sup>, about 4% of the fresh vegetables and 4.5% of the fruits production are exported. The remaining is sold in the domestic market as fresh and processed produce. The basis of the FFV marketing system has been the "wholesale market" where the brokers and merchants play an important role. The Government Decree No. 552 (the "Halles" law) aims is to sustain free competition for FFV trade and strictly forbids wholesale and purchase of FFV anywhere other than wholesale market halls. However, legislation also includes some balanced regulations (exceptions) related to mandatory wholesaling at the hall: producers can retail their produce at producer markets directly to consumers provided they do not exceed the amounts already pre-determined by a municipality.

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<sup>43</sup> pwc, 2012. Turkey in 2041: Looking to the future

<sup>44</sup> TUIK, December 2014 Newsletter No. 1620 Crop Production

<sup>45</sup> <http://www.virtualmarket.fruitlogistica.com/en/Fruit-Vegetable-Exports-Of-Turkey>

<sup>46</sup> TUIK: Turkish Statistical Institute

27. **Use of IPM in horticultural production.** Since 2001, Turkey has been anticipating the need to harmonize its legislation with the European one. A key point of this harmonization in the agricultural domain was the implementation of traceability at the production level. In 2004, the Turkish GAP (Good Agricultural Practices) was created. Like GlobalGAP, this GAP standards allows for certifying that, from upstream to downstream, good practices have been implemented all along the production process and fits with some safety legal rules. In 2012, the Ministry of Food, Agriculture and Livestock (MFAL) imposed, to all fresh produce growers, to create for each crop and destination (domestic or export) a file with in particular the following information: grower identity, type of product, production area, volumes on sale (regulation 5957-2012). Another safety regulation aim to control the chemical input buying process at the grower level. Since 2009, growers must be formally prescribed by a public or certified private agent to buy pesticides. MFAL carry out countrywide certification programs for IPM and GlobalGAP by developing IPM protocols for 16 crops. Farmers are trained to comply with these protocols and their field implementations are closely monitored by MFAL plant production specialists. Based on the results of the residue analysis, the producers are granted Integrated and Controlled Crop Management (EKÜY) certificates. Currently, only 1.5% of the horticultural producers are complying with the protocols.

28. **Seed/seedling production sector.** The country produces about 700.000 tons of seed for 70 crop species by both private and public sector, private being the major source. All of the certified seed need for registered field crop varieties is met domestically while the ratio is only 35% for the hybrid vegetables. There are about 600 seed private companies that provide 65% of the required quantities<sup>47</sup>. In vegetable and strawberry seedling production sector, 110 registered companies operate. The country annually produces 70 million certified grafted seedlings and about 100 million rootstocks and exports large quantities. There is state support for both the certified seed/seedling producers who are members of Seed and Seedling Producers' Associations and the farmers who produce with such plant material. The variety and seed certification has been harmonized with rules of the International Union for the Protection of New Varieties of Plants (UPOV), International Seed Testing Association (ISTA) and OECD Seed Schemes.

29. **Most of the farmers reach the wholesalers through commissioners (brokers).** Commissioners and merchants exert strong roles in the Turkish wholesale market. Bulk buyers in Turkey for fresh produce include transnational and domestic retail chains operating at different spatial scales, traders on bazaars, neighborhood shops as well as HORECA (Hotel, Restaurants and Catering). Although farmers can market their produce via direct marketing to the end consumer for amount up to one ton or through producers' organizations, wholesale intermediaries are usually the dominantly chosen option for Turkish farmers to market their produce in larger quantities to the expanding domestic market. Here producers set the minimum sale prices and the commissioner than arranges the transaction. These service providers are: i) specialized in assembling small and heterogeneous volumes of fresh produce that fit in with wholesalers demand, ii) experienced, with marketing skills that allow them to clear out the market at free market prices for the producer, ii) providers of short-term finance as credit (advance payment) to cover their variable costs<sup>48</sup>. Another important service is the commissioners' capability for arranging transport/loading/unloading at the farm gate. From a legal standpoint, there has been a considerable effort to achieve a balance between the producers, brokers, and merchants/wholesalers. However, the interests of the producers are not being sufficiently protected within the current wholesale market system mainly because producers have not been able to organize themselves. Weak bargaining power and market failures in the output markets are common problems faced by small- scale farmers. Small volumes to be sold through a limited number of intermediaries result in individual farmers having little bargaining power. Their bargaining power becomes more challenged when dealing with fresh produce that is prone to quick spoiling thus loss, owing to high agency and transaction costs and lack of farmer organizations.

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<sup>47</sup> TOBB 2013. Turkey Agricultural Sector Report.

<sup>48</sup> Yılmaz S. and I. Yılmaz, 2008. Evaluation of the wholesale market system for FFV: a case study from Antalya Metropolitan Municipality. New Zealand Journal of Crop and Horticultural Science, 2008, Vol. 36

30. **Farmers' organizations (FOs)** are generally weak and their participation in agricultural policy-making is limited. Three types of organizations exist in the agricultural sector: i) agricultural producer unions (about 200,000 members under 6 thematic categories), ii) chambers of agricultural producers (under the union umbrella of TZOB with 5.4 million members) and iii) cooperatives (about 4.5 million members). Such variety of organizations with different legal basis mandates roles and responsibilities present a significant bottleneck for the development of independent, non-governmental, membership-based rural organizations.

31. For almost a century, the state has maintained a paternalistic role for FOs. This tradition delayed the development of the FOs to become mature entities responsible for their operations, failures and successes. Those that survived or *preferred* to exist under the wings of the state have also created significant financial burden on the state budget, strained the judicial system and kindled social problems within time. Those few that relieved themselves of such coddling were able to develop into autonomous and democratic organizations of economically empowered members by raising incomes and creating employment. Having met their members' social and cultural needs, these FOs have given their members faith in the future<sup>49</sup>. While there are few top-class organizations, in general the majority of the existing organizations suffer from: i) poor management/governance; ii) lack of training and awareness; iii) weak financial status and meager financial management capacity, iv) poor, if not total lack of, cooperation among cooperatives resulting in weak umbrella organizations, and iv) limited cohesion within the cooperatives often leading to conflicts among members.

32. The agricultural development cooperatives in Turkey perform either one or a combination of the following functions for their members:

- **Marketing:** Those are operated through "pooling". The member delivers his product to the cooperative, which pools it with products delivered by other members. The cooperative assembles members' production into large quantities for sale to further processors or wholesalers, and returns to the members their share of total proceeds. A small percentage of the value of the commodities sold is charged as a service fee.
- **Purchasing:** The purpose is to provide farm supplies to their members. Primary cooperatives serve as local retailer or distribution points by purchasing inputs at the lowest possible cost by making bulk purchases and then distributing the inputs in a timely manner to the members to be paid back usually in two months.
- **Delivering services:** The purpose is to help members to gain access to affordable services such as seed cleaning, equipment rental, feed preparation, cold storage, agricultural advice, and passenger transport. The fees/rates to be charged are decided at the Annual General Assemblies,
- **Providing labour:** This function is sector-specific and pertinent for the forestry cooperatives. The purpose is to provide a range of forestry related services (planting, management, harvesting) to its customer that is the Ministry of Forestry and Water Affairs who manages the state owned forests. The main benefits are job security and participation in the distribution of the benefits.
- **Bargaining:** the purpose is to reach agreements with buyers on price and terms of sale that cover a given season for particular commodities.

33. **Agricultural Research and innovation.** Agricultural research is carried out by General Directorate of Agricultural Research (GDARes) under MFAL, universities and the Scientific, Technological Research Council of Turkey (TUBITAK) and Ministry of Development (MoD). GDAR and the research funds of universities and TUBITAK are financially and administratively support the research projects. TUBITAK, SPO, some agro- industry companies, and international bodies, such as CIMMYT, ICARDA, CIHEAM, FAO, IPGRI, CLIMA, CIP, UNDP, UNIDO, EU-FP and UNEP are the

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<sup>49</sup> FAO Policy Studies on Rural Transition, 2013. An Overview of Cooperatives in Turkey.

other important research supporters. The Government takes a strong role in innovation processes, but much more through a governing, supporting and facilitating function than as an overall coordinator. All stakeholders play their designated roles in innovation processes, but no institution has a mandate for overall coordination, and such a mandate does not appear to be felt as obviously lacking in the system. Public Private Partnership (PPP) works fairly well, research facilities and personnel are made available free of cost (except operational costs) for research projects by private sector stakeholders. This linkage and partnership help accelerate innovation process. The agency adopted a multi-disciplinary approach since 1996, and the funds are allocated based on prioritized “*areas of research opportunity and research programs*.” The system shifted from “government and project pushed” approach to “pulled by farmer” approach. Research proposals go through a successive review process before receiving funds. Currently, there are 60 research institutes (central, regional, and thematic) under GDARes where 2200 staff work out of which 24% with BSc, 56% with MSc, 19% with PhD and about 1% with the title of associated professor<sup>50</sup>. Female scientists comprise 37% of total research staff. About 1200 projects are in implementation annually with a budget of around US\$ 81million (excluding revolving budget and staff salaries).

34. In the last 50 years, 2063 field crop varieties were registered out of which 46% was developed by the GDARes institutes by using local genetic material, 5% by universities and the remaining 49% by the private sector mainly based on adaptation trials with varieties developed in other countries (technology transfer). The varieties that were developed by the GDARes system are highly adopted by the producers (above 90% in wheat, barley, lentil and chickpea and standard vegetable varieties). However, there is still a gap for the hybrid vegetable varieties (50%). In fruit production, 96.5% of the total are those that are registered by the GDARes research institutes following multi-year adaptation and agronomic trials. One of those is the “0900Ziraat” that is the earliest cherry variety in Europe. Only 2.4% of the fruit varieties are registered by the private sector through technology transfer. Agricultural research institutes have been playing an important role mainly in technical innovations on the production side but almost no role on marketing and organizational innovations.

35. **Agricultural advisory services.** There is diversity in extension provision: i) public (mainly MFAL, and Ministry of Forestry and Water Affairs for forest villages) and academia and ii) private sector (private advisors, input suppliers, NGOs, agro processing companies, private TV channels, GSM operators). Agricultural extension is an integral part of the structures of the MFAL i.e. government-funded and -provided. MFAL advisory structures operate at all levels: in provinces, districts and villages. There is 11.063 and 18.828 technical staff working at provincial and district directorates, respectively. The ratio of the female staff is 26% for provinces and 23% for districts. Technical staff comprises of: i) agricultural engineers and technicians (65% of the total field staff), and ii) veterinarians and animal health technicians (35% of the total field staff). In 2007, MFAL also launched the TARGEL Project. It was originally based on performance-based system contracting graduates (mostly new graduates) from agricultural and veterinary faculties at village level to provide extension advice to the farmers in a defined area. The system envisaged at least 1-2 agriculturist or veterinarian responsible for 3-10 villages (about 50.000 ha land registered in the National Farmer Registry system and 10.000 livestock registered in TURKVET system). Today there are about 10.000 TARGEL staff, however, it has not been working efficiently as envisaged mainly due to; ii) insufficient if not lack of necessary working infrastructure (office space, vehicle) in the villages; ii) unsolved social problems (fragmented families due to poor living conditions and insufficient education facilities for their children in the villages). Currently, most of such personnel are stationed at the district centers and commuting to the villages, and their status (contracted) is converted to standard public employee. Currently, the TARGEL personnel armed with mobile touch-screen pads visiting every farmer in the Farmer Registry System on-farm for ground-truthing and information gaps regarding assets, crops, households' data, etc. needed to update National Agricultural Census (NAC).

36. MFAL took the initiative to move to a more pluralistic extension system, Private Advisory Service (PAS) provision in 2006. The PAS is supported with considerable financial support by the

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<sup>50</sup> GDAR Mart 2015.

Government for capacity development (certification program) and subsidized service provision e.g. a private advisor who works in organic farming area is allowed to contract with maximum 50 farmers who have at least 50 da of land each. Although there is no hard data observations indicate that except the Western part of the country, public extension remains as the major source.

37. Major issues regarding the public extension are the following: i) the current system is functioning in an awkward way; the experienced staff are mostly busy with the agricultural subsidy bureaucracy that keep them in the office while the inexperienced TARGEL personnel is in direct contact with the farming community in the villages as the cutting edge; ii) the extension workers have a high level of academic training in agriculture (primarily agronomist, veterinarians, zootechnicians) however have inadequate formation regarding communication, community mobilization, participation, partnership facilitation that would help them to deal with the complexity of rural development programming; iii) overlooking the need for change from a process of technology transfer (research institution to farmer) to a process of facilitating a wide range of communication, information, and advocacy services (demand-driven, pluralistic and decentralized extension), iv) conducting no impact study that would help the MFAL re-orient and/or improve extension management by measuring the relevancy, reliability, timely accessibility and cost of advice and efficiency and effectiveness of its services.

38. **Research-Extension Linkage.** The linkages between the research and extension institutions are systematized. There are three types of meetings/workshops: i) Regional Meetings (two times a year), ii) Provincial Group Meetings (before and after the Regional Meetings) , and iii) Dissemination of Research Results Group Meeting (once a year). In these meetings the research specialists are informed about the problems at the farm level, and the research opportunity areas are identified together with the extension specialist. On the other hand, extension specialists are informed about the status of on-going research programs and also the research results. The extension specialists also provide feedback to the researchers about implementation of the research results.

39. **The ITC use.** Computer and Internet access have become commonly available and are fairly widely used also by farmers, at least in the more advanced Aegean and Mediterranean regions, although there is still a clear divide between urban and rural households in Internet use, at 49% and 24% respectively. In some remote regions, connectivity is there, but not all farmers have the capacities and means for utilizing these technologies. About 45% of those farmers who have Internet use it through their cell phones instead of computers<sup>51</sup>. Private sector provides significant support to the ITC use in the agricultural/rural sector. One the GSM operators in Turkey<sup>52</sup>, recently launched a project (AgroMed) that provides agricultural consultancy tailored to farmers' specific needs. The service is the first service of its kind, providing farmers with required information based on crops, specific territories, and soil characteristics through SMS. The system is supported by a call center, communication centers, and agricultural engineers for field contacts with farmers, as required. AgroMed aims to increase farmers' revenues by 10%, while reducing costs by 20% by offering assistance in all aspects of farming from soil analysis, planting planning, and pesticides to stock farming along the agricultural value chain. MFAL established Agricultural Web TV through which learning videos on a wide range of agricultural topics are accessible to anybody with a reasonably fast Internet access.

40. **Climate Change.** Turkey is one of the countries in the Mediterranean Basin that could be profoundly affected by the climate change. A number of studies point to: i) temperature increases everywhere in all seasons, but the increases are larger in summer than winter; ii) decreases in annual precipitation amounts in southern parts of Turkey, and possible slight increases in the northeast; iii) more intense precipitation events, increasing the risks of fluvial and pluvial flooding, together with landslides; iv) increased intensity and duration of droughts and hot spells leading to increased water

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<sup>51</sup> Tarımsal Pazarlama Eğitim Yayıncılık Limited Şti, İstanbul. Use of ITCs by Turkish Farmers (Turkish)

<sup>52</sup> nccr Trade Regulation, December 2013 Working Paper. Agricultural Innovations in Turkey.

stress and rising sea levels, increasing the risks of flooding in low-lying areas of river deltas and coastal cities<sup>53</sup>.

41. The recently experienced severe drought conditions in many parts of the country suggest that Turkey must reassess its water management policies and practices in agriculture and the intricately linked food and beverage industry. There are signs that climate change has already affected crop productivity and will put increasing pressure on agriculture and industry in the coming decades that call for the development and implementation of options for climate change adaptation. Many of the options for agriculture are similar to existing 'best practice' and "good natural resource management" thus do not require farmers and industry to make radical changes in their operations in the near term. These options can and should be prioritized as part of a set "no regrets" investments or "win-win" strategy for agriculture in general and food and beverage industry specifically e.g. water saving technologies because they will bring immediate and sustainable benefits while preparing the sector for climate change. The economic effects of climate change will not be significant until the late 2030s as suggested in a recent study<sup>54</sup>. Therefore, Turkey has a window of opportunity to develop and implement adaptation policies since agriculture and food production will be the most affected sectors from the predicted water shortages.

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<sup>53</sup> International Finance Cooperation and European Bank for Reconstruction and Development 2013. Climate Risk Study, Pilot Climate Change Adaptation Market Study: Turkey.

<sup>54</sup> Dudu H., Çakmak Erol 2012. Climate Change and Agriculture: An Integrated Approach to Evaluate Economywide Effects for Turkey.



## Appendix 2: Poverty, targeting and gender

### Gender, targeting and social inclusion

1. **Geographic targeting.** The Project area has been identified by MFAL, and confirmed by MoD, to be poor with opportunities for substantial improvements in agricultural productivity and profitability. Based on the MoD's socio-economic development criteria (2013), Konya and Karaman provinces are among the provinces that rank as the "Second" and "Third Degree Developed Provinces" respectively, among the 81 provinces of the country. Turkey out of the 6 'Degrees' grouped, with the 1st, as Istanbul, being the most developed. The two provinces selected for the Project show consistent disparities between the upland and lowlands areas, not only in terms of economic opportunities and income, but also in terms of access to services. The environmental conditions of the upland areas increase the vulnerability of the population.
2. **Poverty:** The higher poverty rate is registered in these mountain villages, hence setting the first criteria for geographic targeting. All of the villages of Ahırlı, Başyayla, Bozkır, Ermenek, Hadim, Sarıveliler, Taşkent districts are included in the Project area while the villages on flat parts of Karaman Merkez, Güneysınır, Akören, and Yalınhöyük districts are excluded.
3. Poverty in the Project area is due to: (i) rough terrain and limited public investments for roads; (ii) insufficient social infrastructure (sanitation facilities, utility water network, poor health care and education services in terms of quality and physical investment), (iii) low agricultural production due to small and fragmented agricultural lands coupled with traditional growing practices; (iv) difficulties associated with marketing and (v) environmental degradation.

### Project target groups

4. The project will target (i) HHs of smallholder farmers to move to semi-commercial farming while building their resilience to climate change; and (ii) support communities (resident and nomads) for participatory development and implementation of community based NRM plans. The Project will have two target groups: i) primary and ii) secondary.
5. **Primary target group:** The total number of project beneficiaries would be around 32,000 households consisting of the following groups:
6. Productive smallholders (men and women) farmers (main target group) in targeted districts who practice mixed farming in the uplands as permanent residents
7. Poor households, youth that are looking forward to have some livelihood opportunities to continue their lives in the otherwise may migrate and women (including women headed households that are rare)
8. Nomads (pastoralists): This group (the total number may vary over 150 families) engaged in livestock production as primary livelihood and reside in the Project area for about 4/5 months per year
9. Smallholder farmers are categorized as: i) farmers with marginal and adequate surplus, ii) farmers producing surplus for marketing.
10. Farmers with marginal and adequate surplus. They cultivate a limited area of land that is between 2 and 4 ha, usually use somewhat outdated agronomic practices but still produce enough to participate in the target value chains with a market orientation. Important post-harvest losses, low bargaining power and poor market linkages reduce their income derived from the sale of limited surplus. They have limited access to financial services from formal institutions, market and are organized in FOs. Women work in the family land sharing work and responsibilities with their husbands, are engaged in selling products in local markets, have limited decision making power and limited participation in FOs. They have no representation at village administration. The project will set quota for their participation (at least 30%) in the value chain process.

11. **Farmers producing a surplus for marketing:** They actively engage in agriculture at a larger scale than their counterparts with a commercial purpose turning farmers in this group into net sellers. The inputs and the agronomic practices they use enable them to produce for the market but do not provide resilience to climate change and they face important post-harvest losses. However, they have considerable bargaining power in the market. Formal financial institutions offer limited financial products to this group, which limits their ability to expand their production and productivity levels, which is key for a proper value chain development. They usually are working individually and provide job opportunities for unemployed population. The project intends to include at least 10% of HHs belonging to this category.

12. **Poor households, youth and women** and more specifically women heads of households will benefit from direct targeting mechanisms guided by quotas for livelihood support and for women in participating in FOs and value chain development. Poorest households are the ones that are almost near landless, not fully engaged in agricultural production and rely on social assistance. The project will mobilize effort to target at least 20% HHs of the project belonging to this group.

13. **Nomads.** Nomadic people who are living in the Mediterranean Region during the winter (Alanya, Gazipaşa and Manavgat districts of Antalya and Silifke, Anamur, Erdemli, Bozyazi and Aydıncık districts of Mersin province) move northwards to Konya and Karaman area with their herd in order to graze their animals. There are around 130 to 150 (registered, but is estimated that can be more) families and herding about 50,000 goats and sheep. In the late '70s and early 80s, the Government had a nationwide settlement program where the nomads were given free land to encourage them to settle permanently. However, in the Project area those families still pursue the nomadic life<sup>55</sup>. They usually spend six months in the coastal zone between November and end of April. Two months are then spent on the way and they can stay from four to five months on the highlands around Konya and Karaman. Their livelihood is affected by the fragile eco-system and climate change further distressed by human activities and land use change (grazing land management/forest protection) has endangered their livelihood and lifestyle. The programme will target all families, with particular attention to the poorest ones (estimated around 120) vulnerable and those having less access than others to key services for their livelihood. They will benefit from direct-targeted interventions.

14. **Livelihood:** The main livelihood strategy of the rural resident population is to combine crop and livestock production (mixed farming). Usually fruit production (grape, cherry and apple) is combined with some field crops (e.g. wheat, barley, chick pea) and some small ruminants, in rainfed and relatively flat areas sheep is more common while in rough terrain mostly goats are kept.

15. The majority of the households are **productive poor** having some assets and willingness to produce and market their commodities. Most of them have already linked to the markets, but need enhancement, particularly on quality standards of products.

16. Agricultural production is practiced by both men and women, with different degrees of responsibilities, as well as decisions. Women in the Project area work on family land which, by law (as reported above) they own equally with their husbands and provide wages labour as well as fulfilling traditional gender roles: they contribute to family income and welfare.

17. Cultural norms in the Project area vary from the lowlands to the uplands, where agricultural practices see women fully engaged in farming activities, marketing their commodities in the local market, milk and dairy products as well as engaged in processing activities (i.e. drying fruits). These other activities help to complement the main HHs livelihood strategy that can be based on several options of production. In the lowland mechanization of agriculture has confined women to more domestic roles, while in the highland they still play an active role and they are also more organized, compared to the lowland in Cooperatives/associations.

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<sup>55</sup> Yörüks and Livestock Production 2014. Presentation prepared by M. Sadık Oturanç, Konya Provincial Directorate of Food Agriculture and Livestock.

18. **Livelihood of nomads** depends on goat production and artisanal products and milk products. It is one of the traditional occupations, which have been carried out for centuries in rural regions, particularly in mountainous areas. Their flocks have ear tags starting from the age of three months and they receive all mandatory veterinary services free of charge since they are registered in MFAL Livestock Information System (TURKVET).

19. Yörüks have two lifestyle patterns where: i) the majority are semi-mobile and graze the highlands of the Taurus mountains from spring through autumn. The rest of the year, they generally live in the peri-urban areas along the coast. They generally have some form of employment or cultivate land that they own and rent, ii) the other groups are fully mobile, carrying their entire homes and belongings, livestock sheep and goats and extended families. Some families set up tents only returning to the lowland/coastal villages in the autumn before the first snows and or before schools start, however others live permanently in tents and move for more than seven months per year. They move in a classic "transhumance" seasonal round, spending the cold seasons in the lowlands and the warm ones in the highlands, and moving directly between the two areas.

20. The grazing lands in the region are either private, i.e. legally allocated "rangelands" of villages or in gazetted forest that is managed by the OGM. In some cases, the boundaries of rangelands have not been identified and the area have not been officially allocated to villages but had been used based on the usufructure rights and village administrations may charge a fee (per day or per animal) for the right to graze. These fees generally cover right to use the grazing land as well as the water that belongs to the village. Some nomads have informal agreements with the villages on their traditional routes regarding when they are permitted to graze.

21. In the other cases, the nomads are given permission by the local forestry authorities to graze livestock in areas identified *within the gazetted forest* as per the grazing plans prepared for each province by OGM along the migratory routes/trails. In all cases OGM carries out consultations with and informs all parties including the villages and the nomads. The decisions are publicly announced or posted in public locations.

22. Families may also move together with their animals, a few using camels to transport household goods. If affordable, some better off families can use tracks with water tanks (water storage tanks 1-3 tons) that they periodically fill from the village sources, to be used both domestically and for the livestock) while the ones using camels rely exclusively on natural water points or water provided by villagers along the routes.

23. Communication on the routes for the pastoralists is provided by provincial authorities at their initial departing station. Nomads families, to transit on those routes, must have a written permission (obtained before departure) animals have to be vaccinated and ear tagged. Those services are provided by the Provincial Directorates of MFAL and are free of charge. The families registered as nomads transiting in the project area (130) are almost all provided with the requirements above.

24. Although the traditional life style and livelihood system persist in different degrees, the encapsulation of the society into modern systems and administration, has led to many changes. Social organisation of the nomads appear to be according to individual families and households structure, where the representative is each head of household is a male. Internal differentiation within the nomads in subgroups is still present (i.e. Sarikeçili, Karakeçili) since they refer to each other using different terminology.

25. **Targeting poor farmers:** Poor farmers will be identified through transparent participatory process with the communities that will also define the parameters for selection. General guidelines to identify the very poor will include information contained in the lists of poor families receiving (or not) the social assistance from the Government.

Very poor farmers	Subsistence farmers with marginal/adequate	Farmers with surpluses for the market
Poorest HHs that have not benefited from other governmental or development intervention	Organized in groups/individuals Engaged in agricultural activity in over 1 ha of land	Engaged in agricultural activity with market participation in at least 4 hectares of land
Have less than 1 ha of land under cultivation and less than 2 animals units	Mostly rainfed land with small patches of irrigated land	Use of modern agronomic practices
Poor kinship support (no remittances from relatives)	Somewhat outdated agronomic practices	More irrigated land and some rainfed land
No member of household in formal employment	Limited benefit from extension services	Benefit from extension services
No member of cooperatives/association	Committed to storage/aggregation facilities for efficient marketing	Committed to storage/aggregation facilities for efficient marketing
Women head of household	Some have erratic links with the market, interested in expanding to commercial agriculture	More established links with the markets and make efforts to market on a larger scale
	Expression of interest to engage in the project	Expression of interest to engage in the project
	Minimum 30% targeted women	Models for the others
		Willing to share experiences

26. **Secondary target group.** These will be extension services providers (public and private), providing other support services to smallholders' farmers as well as nomads. The project will also aim at building capacity to provide better services to farmers essential for inclusive and effective value chain growth on one hand and also on sustainable use and management of natural resources (land, water, rangelands) and enhancing local governance and consultative processes. This is particularly relevant for the demand-driven nature of the intervention. In addition to the extension services providers, SMEs will be supported through capacity building and matching grants for engaging in downstream activities and enhance the market and VC potential of the area

27. **Beneficiary selection and self-targeting:** All target groups can apply to benefit from project opportunities (self-targeting). However, to benefit from investments (through matching grants) the applicants need to comply with the eligibility criteria set in the PIM. There will be no criteria to participate in awareness raising and training.

28. Poor households as indicated above, rely on government social assistance that identify beneficiaries through a local committee and based on a set of criteria (paragraph 14). The Project, instead of setting up a parallel and potentially a conflicting system to identify such households will rely on the current well-functioning system. The Gender and Community Development Focal Point (GCDFP) would work closely with the head of the District Director of MFAL and village headmen (members of the local committee and will receive relevant sensitization training) to ensure that poor women and youth are evaluated objectively.

29. **Incentives for women inclusion:** Proposals presented by FOs whose number include at least 30% women would have preferential consideration in the selection. Specific process for selection of beneficiary groups will be developed in the PIM building on the above principles, ensuring screening as an ongoing process.

30. **Broad Participation:** The project will proactively mainstream the targeting of women in community consultations through various methods. It will promote gender mainstreaming and gender analysis culture in all planning, programming, implementation (including M&E) and learning; with gender disaggregated reporting. A special effort will also be made to address women's constraints in engaging with the process; e.g., training to women leaders, separate focus group discussions for women, including women as role models in project teams.

31. **Exposure visits:** women targeted by the project will be participating in learning events and also in exchange tours within/outside the project area to be exposed to but not limited to the other women's groups experience. The aim is to help women to learn from other's experiences and strengthen their networking.

32. **Targeting the nomads.** The FST will organize consultation, awareness, demonstration, training and all the activities concerning the nomads, in respect of their calendar and also their mobile patterns. In addition to this, a representation from the nomadic groups will be selected and trained to participate in the consultation process and committees established for the grazing land management. The nomads will benefit of the grazing land management activities in fact the Rangeland Regulation issued based on the Rangeland Law. The project intervention will introduce inclusive principles in the planning process for the use of the rangeland and NRM applying participatory planning methodology in the consultation process.

33. Both users (all nomads and residents HH) should receive demonstrations on sustainable use of natural resources. Planning and support to service delivery will take into consideration seasonal migration patterns and resource management mechanisms prevalent among nomads communities. Their view will be captured in the consultation process and positive results of joint consultation (nomads and settled communities) as a preventive measure to conflict on natural resources will be captured by the M&E system in place. For what concern nomads inclusion in NRM decision-making, service providers will be trained in specific methodology and participatory processes.

34. **Direct targeting** Particular attention to reach out the more disadvantaged families of nomads will be put in place. The small group of 120 poorest families, which appears to be more poor and disadvantaged than the other families, will benefit of direct targeting interventions upon prior consultation based on a viable menu of options including mobile veterinary services as well as other services helping human and animal mobility: (i) improving goat health (to reduce losses/mortality from diseases and parasitic infestations- internal and external - which would result in higher productivity of goat flocks; training selected Yörüks pastoralists as Community Animal Health Workers (CAHWS) on basic animal health practices (e.g. deworming).

35. **Youth Targeting.** For the youth, limited land availability is an incentive to look for an income outside agriculture. Despite increased openings in income generation linked to non-farm activities the main livelihood source remains agriculture. The project will therefore assist youth in exploring agricultural income generating activities and it will reach out to those who have managed to buy land through non-agricultural wage earning and are ready to grow into future entrepreneurs and leaders.

36. **Youth mainstreaming.** The project will: (i) profile young people as part of the baseline value chain analysis and locate those that are household to have a better understanding of their poverty levels ii) prioritise young people for training related to the development of skills and capacities in off-farm income generation iii) promote poorer young households gaining access to labour generated by the project; and (iv) identify within cooperatives the high potential youth that has good literacy skills and can be selected for the future leaders training.

### **Gender and Social Inclusion Mechanism**

37. **Gender study embedded in the Gap Analysis/Study for Market Linkages:** Two key studies would be conducted in the first year of the Project, after start-up: i) a Gap Analysis/study for market linkages of the producers; ii) a Diagnostic Study for all FOs to investigate reasons for failure and/or being dormant and to identify positive aspects to dwell on for improvement. Both studies would develop recommendations and action plans. As part of those studies a specific Gender and Social Inclusion analysis will be undertaken. The study will be carried out to further (i) identify the distinctive characteristics of male and female producers of different poverty levels; (ii) identify opportunities and measures required to promote their inclusion in the value chains; and (iii) mainstream on this basis gender and inclusion issues into project implementation. Results will be validated through stakeholder workshops and serve as a basis to set up the **Gender Strategy and Implementation Action Plan** for each value chains relevant for women. The Stakeholder workshops will be organized by the PCU, in collaboration with the service providers.

38. **The Gender Strategy and Implementation Action Plan** will include actions to improve production and develop market linkages, as well as activities designed to expand women's and poorer households' access to and control over capital, land, knowledge and support services. The plan will

be reviewed every year. A key measure will be the establishment of quotas for women's and youth access to services and their participation in decision-making bodies. They will include quantified targets and performance indicators. The study will be carried out by a national consultant that will work in close collaboration with the value chain/market experts carrying out the market VC analysis.

39. Gender will be a cross-cutting strategy that includes the following activities:

- Gender equality concepts are adequately introduced to project staff as well as women and men from project communities as much as possible during the project work;
- Facilitation of women's/men's equal and meaningful participation in the project activities and their voices heard in decision-making to be ensured by the project implementing partners;
- Gender sensitive language is used in all documents – resource and information, education, and communication materials, reports, etc.;
- Mechanisms and tools are in place to ensure equitable access to and control over resources;
- Gender impact assessment of the project are to be conducted along with periodic review and learning of the project;
- Sex disaggregated data is to be collected, analyzed and used for ongoing project
- Development and reporting - with both quantitative and qualitative information;
- Gender sensitive organizational policies, practices and staff recruitment for all levels (from management positions to field level positions). This includes ensuring that the project will support inclusion of female extension workers and women in the FSTs
- Gender/youth/community development focal point in PMU

40. **Responsibility for Gender mainstreaming and social inclusion:** within the PMU there will be a Gender/youth/Community Development Focal Point (GCDFP) (seconded from the existing MFAL staff) to be responsible for gender mainstreaming, social inclusion, community mobilization as well as the implementation of the CDD methodologies. The GCDFP together with M&E and KM Officer will be responsible for ensuring that women and youth are participating in the dialogue and project activities as equal partners, and that issues specifically related to women and youth are being adequately addressed. The GCDFP works in close collaboration with the M&E and Knowledge Management Specialist, responsible for public sensitization on gender and for organizing experience-sharing workshops to identify, document and disseminate good practices on gender mainstreaming. The person will be also responsible for all the trainings to the FST on the matter. The Project coordinator will be responsible to supervise the work of the GCDFP.

## Annex I. Description of the target groups

Target group	Characteristics	Issues/priorities	Responses/activities
Principal beneficiaries of GTWDP targeting			
Farmers with marginal and adequate surplus	Own land 2-4 ha Rainfed/irrigated agriculture Small and fragmented plots Not business oriented farmers	Limited access to financial services due to collateral constraints Lack of collective action /organisational capacity and governance  Treat farming as a means of subsistence/limited market Limited skills in entrepreneurship, marketing  Environmental degradation, lack of/limited irrigation infrastructure	Increase access to finance (grants)  Increase mobilisation and awareness for collective action and creation of groups Participate in FOs Exposure visits to successful FOs  Training on farming as a business and simple book keeping and entrepreneurship  Soil and water conservation activities /rangeland management/small infrastructures for irrigation
Farmers with large surplus	Own no less than 4 ha land and agricultural production is oriented to market Large plots of irrigated land Business oriented farmers	Improve production quality and quantity  Individual farmers/lack of collective action	Act as “model farmer” for the others Improve access to finance, market and knowledge  Engage actively in FOs Training on entrepreneurship
Very Poor farmers	Landless or near landless; Access to social support from government	Vulnerable livelihoods Lack of assets Lack of skills	Labour saving technologies and equipment for drying processing Introduction of poultry production to groups of poor women Technical training on poultry production Technical training on processing, drying and packaging fruits
Women	More likely to be poor, higher unemployment, work as unpaid family	Human assets Conflicting demands on time Lack technical and business skills Less access to information than men	Target for women’s participation in training and exposure visits to other cooperatives/women’s groups (learning)

Target group	Characteristics	Issues/priorities	Responses/activities
	labour, generally disadvantaged in economic issues compared to men. Play major role in vegetable farming, production of milk and dairy products, poultry production for domestic consumption or marketing locally	<p>Natural assets According to traditional practices could not use inherited land –</p> <p>Physical assets Limited access to extension services, training Weak linkages to market information, markets Low rates of technology adoption</p> <p>Social assets Traditionally not participate in decision-making bodies Limited access to agricultural information through extension service Reticent to speak in public</p>	<p>Select as lead farmers when appropriate and promote awards events</p> <p>Promote participation in business skills training</p> <p>Strengthen gender mainstreaming in extension staff skills and message delivery</p> <p>Target for women's participation in clusters</p> <p>Women representation in cooperatives (at least 30%)</p> <p>Ensure extension services gender-sensitive and inclusive through training</p> <p>Potential development for milk value chain and increase production of milk/dairy production.</p> <p>Encourage attendance at project sensitisation meetings and have at least 50% participants</p> <p>Promote group formation and strengthening among women</p> <p>Provide leadership and entrepreneurship training</p> <p>Encourage participation in farmers' associations and organisation, at least 30% women.</p>
Target group	Characteristics	Issues/priorities	Responses/activities
Female-headed households (rare in the project area) (in addition to issues facing women in general, as noted above)	Among poorer HHs, with greater burden of dependents, lower earning capacity, fewer assets	<p>Human assets Ability to cultivate land constrained by labour especially if widowed, elderly Difficult to perform some tasks based on gender division of labour Make more use of family labour and less use of hired labour</p> <p>Natural assets</p> <p>Physical assets</p>	<p>Labor saving technology</p> <p>Engagement in alternative activities that can be performed at home: drying processing, jam production, poultry, and production of aromatic and medicinal plant in the garden.</p>
Youth	People aged 15-30 with	Human assets Reticent to participate in agriculture	Training in farming as a business and entrepreneurship



Target group	Characteristics	Issues/priorities	Responses/activities
	high tendency to migration	<p>Prefer off-farm work            Migrate away from rural areas            Lack of/limited technical and business skills</p> <p>Natural assets            Difficulty in accessing land            Delayed inheritance from elderly parents</p> <p>Physical assets</p> <p>Financial assets            Limited access to financial services due to collateral constraints            Lack financial resources to buy inputs and technologies</p> <p>Social assets</p>	<p>Mentoring programmes            Select as lead farmers when appropriate            Strengthen youth mainstreaming in extension staff skills and message delivery</p> <p>Promote youth participation in FOs to collectively access financial support from the project</p> <p>Encourage attendance at project sensitisation meetings            Promote group formation and strengthening among youth            Provide leadership training            Encourage participation in village decision-making bodies, including committees, cluster committees, irrigation association and management committee, farmers' associations and higher level farmer organisations</p>
Nomads	<p>Between 120/150 families            (registered/number of total nomads not yet defined). Vulnerability due to reduced access to natural resources for animal feeding, reduction of traditional grazing area, l</p> <p>Limited literacy and lack of access to basic social services</p>	<p>Vulnerable livelihoods, depending exclusively on livestock and complementary dairy production.            Lack of access to resources (water) and basic services in the project area            Lack of knowledge on law and regulations/lack of participation in decision making on NRM            Erosion of traditional institutions and organisation</p>	<p>In support of existing field veterinary services training of selected Yörüks pastoralists as Community Animal Health Workers on basic animal health practices (e.g. deworming) to improve livestock health.            Use participatory methodology to increase understanding and competence through community conversations, behaviour change communication for consulting with rangeland users (nomads and resident HHs) this include information on low and regulation for the rangeland as well as explaining the relevance of animal mobility for the eco-system.            Support nomads families to identify representatives            Include representatives in the Committees for grazing plan preparation</p>

Target group	Characteristics	Issues/priorities	Responses/activities
	Poorest households travelling with camels	Longer travel distance due to re-routing to avoid forestry activity area and/or planted private fields.	Use participatory common property resource management/planning methods/approaches  Identification and provision of services identified and selected by the communities in a menu of options: mobile veterinary services as well as small infrastructures.
	Better off families moving with tracks/larger number of flocks/shepherds hired	Longer travel distance due to re-routing to avoid forestry activity areas and/or planted private fields.	Participation to demonstration of actions for soil conservation and Use COMMOD for participatory common property resource management/planning
<b>Secondary beneficiaries of targeting</b>			
Agricultural extension staff particularly Farmer Support Teams)	Provincial and field	Limited skills in gender mainstreaming and youth Limited understanding and competence in participatory development approaches Limited skills in conflict resolution on shared resources Limited skills in community empowerment Women under-represented	Specialist training for gender focal points at all levels, from province to the field. Support the work of the Project Management Units Support the preparation of gender and social inclusion plans and manuals  Integrate gender and social inclusion, as well as participatory methods into training and refresher training for extension staff  Train staff to conduct participatory consultation ( i.e. nomads)  Encourage secondment of women extension staff  Train extensions service to undertake activities that consider the calendar and needs of the nomads.  Train the extension service to conduct demand driven consultation and Commode approach.

## Annex II. SWOT ANALYSIS

<b>Strengths</b>	<b>Weaknesses</b>
<ol style="list-style-type: none"> <li>1. Projects target productive poor smallholders irrespective of gender (gender neutral)</li> <li>2. Women's participation at all levels of planning and implementation is encouraged</li> <li>3. Field staff trained in training in gender concepts and methods</li> <li>4. Number of women participating in awareness raising and farmer training is increasing</li> <li>5. Income generating activities are designed solely for women e.g. semi-commercial poultry production, MAPs production</li> <li>6. Employment opportunities for women</li> <li>7. Availability of gender focal points in the villages</li> <li>8. Female staff member at the CPMU and PPMs</li> <li>9. National gender policy in place</li> <li>10. National Action Plan for Women in Rural Areas is in place</li> </ol>	<ol style="list-style-type: none"> <li>11. Staff weak in gender analysis</li> <li>12. Weak business skills among women</li> </ol>
<b>Opportunities</b>	<b>Threats</b>
<ol style="list-style-type: none"> <li>13. Conduct a baseline survey</li> <li>14. Gender mainstreaming experiences from other IFAD projects in Turkey and elsewhere</li> <li>15. Awareness raising and training of beneficiaries</li> <li>16. Exposure visits to successful farm-holdings, private companies</li> <li>17. Advisory services to women</li> <li>18. Capacity building for field staff</li> <li>19. Use gender specific indicators during monitoring and evaluation</li> <li>20. National gender policy in place</li> <li>21. National Action Plan for Women in Rural Areas is in place</li> </ol>	<ol style="list-style-type: none"> <li>22. Unaffordability of matching grants</li> <li>23. Men crowd out women from investments</li> <li>24. Weak collective action</li> </ol>

## Annex III: IFAD' Checklist for targeting at Design

	Design
1. Does the main target group - those expected to benefit most- correspond to IFAD's target group as defined by the Targeting Policy (poorer households and food insecure)?	<p>The area covers 11 districts of Konya and Karaman on/along the Taurus Mountains. In the Project area there are 32,098 households living in 212 upland villages with a total population of 118,800. The majority is engaged in fruit and field crops production on 166,536 hectares out of which only 15% is irrigated and keep small flocks of small ruminants. In the remaining 85% of the land rainfed agriculture where small grains and pulses are the main crops.</p> <p>All of the villages of the poorest districts of Konya and Karaman namely, Ahırlı, Başyayla, Bozkır, Ermenek, Hadim, Sarıveliler, Taşkent districts are included in the Project area while the villages on flat parts of Karaman Merkez, Güneysınır, Akören, and Yalıhöyük districts are excluded. About 95% of these villages are the forest villages that are known as the poorest villages in Turkey. However, food insecurity is not an issue because the poorest benefit from government's social assistance programs including food aid.</p> <p>The project will target (i) HHs of poor smallholder farmers to move to semi-commercial farming while building their resilience to climate change; and (ii) support communities (resident and nomads) for participatory development and implementation of community based NRM plans.</p>
2. Have target sub-groups been identified and described according to their different socio-economic characteristics, assets and livelihoods - with attention to gender and youth differences?	<p>Yes. The total number of project beneficiaries would be around 32,000 households consisting of the following groups:</p> <p>Productive smallholders (men and women) farmers (main target group) in targeted districts who practice mixed farming in the uplands as permanent residents;</p> <p>Poor households, youth that are looking forward to have some livelihood opportunities to continue their lives in the otherwise may migrate and women (including women headed households that are rare)</p> <p>Nomads (pastoralists): This group (the total number may vary over 150 families) engaged in livestock production as primary livelihood and reside in the Project area for about 4/5 months per year.</p>
3. Is evidence provided of interest in and likely uptake of the proposed activities by the identified target sub-groups? What is the evidence? (matrix on analysis of project components and activities by principal beneficiary groups completed?)	<p>Yes. There is a huge unmet demand for forming groups/associations and cooperative, as well as for individual farmers' interest to increase access to market as well as agricultural production and employment opportunities for unemployed youth. the value chains supported by the project reflect crops that are already traditionally grown in the regions. Consultation with Nomads has also revealed the need to introduce development intervention to help them to access basic services relevant for their livelihood as well as improve mechanism for accessing natural resources. Natural resource management sub component is relevant for farmers relying on mix crops as well as nomads.</p>
4. Does the design document describe a feasible and operational targeting strategy in line with the Targeting Policy, involving some or all of the following measures and methods:	

4.1 Geographic targeting – based on poverty data or proxy indicators to identify, for area-based projects or programmes, geographic areas (and within these, communities) with high concentrations of poor people

The Project area has been identified by MFAL, and confirmed by Ministry of Development (MoD), to be poor with opportunities for substantial improvements in agricultural productivity and profitability. The area covers 11 districts of Konya and Karaman on/along the Taurus Mountains. In the Project area there are 32,098 households living in 212 upland villages with a total population of 118,800. The majority is engaged in fruit and field crops production on 166,536 hectares out of which only 15% is irrigated and keep small flocks of small ruminants. In the remaining 85% of the land rainfed agriculture where small grains and pulses are the main crops.

All of the villages of the poorest districts of Konya and Karaman namely, Ahırlı, Başyayla, Bozkır, Ermenek, Hadim, Sariveiler, Taşkent districts are included in the Project area while the villages on flat parts of Karaman Merkez, Güneysınır, Akören, and Yalıhöyük districts are excluded. About 95% of these villages are the forest villages that are known as the poorest villages in Turkey.

4.2 Direct targeting - when services or resources are to be channelled to specific individuals or households

The target to include women in HH category of poor and HHs with adequate/marginal surplus will be not less than 30%). Women, in addition to the project activities where they can equally benefit with men, they will also benefit from services and resources regarding small-scale poultry production and medicinal and aromatic plant production and drying particularly channelled to them.

About 120 families of nomads Yoruk will be also receiving support as the resident communities such as overnight shelters, livestock drinking water troughs, portable solar energy panels for milking machines and pumps for drinking water, In support of existing field veterinary services, training selected Yörük pastoralists as Community Animal Health Workers on basic animal health practices (e.g. deworming) to improve livestock health.

4.3 Self targeting – when goods and services respond to the priority needs, resource endowments and livelihood strategies of target groups

VC development is key for all targeted population and involvement of all target groups, men, women, and youth. It will create economic empowerment for all. Sustainable use of shared natural resources (land, water, grazing areas) are vital for the settled as well nomadic population relying on mix farming and livestock (mainly goat production) respectively. GTWDP activities are highly empowering the beneficiaries including women, youths and nomads; they build social and psychological self-confidence hand in hand with economic empowerment and governance of local resources. Capacity building will target individual farmers, FOs, nomads as well as extension service providers, traders, processors.

The Project would assist to develop participatory grazing plans that would also involve the nomads. Mobilisation strategy will be encouraging women and youth participation in other relevant decision making bodies.

4.4 Empowering measures - including information and communication, focused capacity- and confidence-building measures, organisational support, in order to empower and encourage the more active participation and inclusion in planning and decision making of people who traditionally have less voice and power

Results from the Gender and Social Inclusion Study will not only inform the social inclusion in the implementation of the project but could also contribute to the policy dialogue in the country. The M&E and Knowledge Management Specialist at the PMU will prepare and disseminate messages on gender and poverty targeting. The PMU will organize experience-sharing workshops to identify good practice on targeting and disseminate lessons.

4.5 Enabling measures –to strengthen stakeholders' and partners' attitude and commitment to poverty targeting, gender equality and women's empowerment, including policy dialogue, awareness-raising and capacity-building

4.6 Attention to procedural measures - that could militate against participation by the intended target groups

Procedural measures will be addressed in PIM to prevent political interference in selection of the poorest project areas/elite capture. The eligibility criteria for matching grants that will be transparent will be adjusted according to the target groups and will be publicly announced. This will discourage the political interference and elite capture. Possible procedural obstacles to women and youth and the poor's access to economic opportunities are also analysed and addressed. While the ultimate responsibility poverty targeting, gender & youth focus lies with the Project coordinator, a Gender and Community Development Focal Person (GCDFP) will be seconded as part of the PMU team to be responsible for these topics during implementation. The same responsibility at field level is with the Farmers Support Teams (FSTs). Service providers will be required to demonstrate gender responsiveness and will participate in the definition of the Project's Gender Strategy and Implementation Action Plan. The same responsiveness and awareness will be required for what concern inclusion of the nomads and knowledge of participatory methods.

4.7 Operational measures - appropriate project/programme management arrangements, staffing, selection of implementation partners and service providers

5. Monitoring targeting performance. Does the design document specify that targeting performance will be monitored using participatory M&E, and also be assessed at mid-term review? Does the M&E framework allow for the collection/analysis of sex-disaggregated data and are there gender-sensitive indicators against which to monitor/evaluate outputs, outcomes and impacts?

Monitoring and evaluation of poverty targeting, gender and youth focus will be part and parcel of the programmes' supervision schedule. This will include; one supervision mission and one follow-up mission annually; and a mid-term review. Progress on these issues will be reported in the by-annual progress reports. All people-centred indicators will be disaggregated by gender and age, and enriched by qualitative information and analysis. Reporting on poverty targeting, gender and youth focus will be part of the reporting requirements.

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## ANNEX IV: IFAD’s Key Features of Gender-Sensitive Design and Implementation

<b>Design</b>	
<p>1. The project design report contains – and project implementation is based on - gender-disaggregated poverty data and an analysis of gender differences in the activities or sectors concerned, as well as an analysis of each project activity from the gender perspective to address any unintentional barriers to women’s participation.</p>	<p>Konya and Karaman are among the provinces that rank as the “Second” and “Third Degree Developed Provinces” respectively, among the 81 provinces of the country, out of 6 Categories, with the 1st, as Istanbul, being the most developed. The 11 Project districts are in the “Least Developed Group” among the 37 districts and also in the lower end of that group. Poverty is affecting poor rural women more than men, gender differences are analysed in the social, physical, financial assets that make women more vulnerable and with low access to key agricultural assets (i.e. land) and to decision-making and information.</p>
<p>2. The project design report articulates – or the project implements – actions with aim to:</p> <p>1. Expand women’s economic empowerment through access to and control over productive and household assets;</p> <p>Strengthen women’s decision-making role in the household and community, and their representation in membership and leadership of local institutions;</p> <p>Achieve a reduced workload and an equitable workload balance between women and men.</p>	<p>Women will be engaged in all activities and trainings proposed by the Project: business and market skills to access financial services and being fully involved in the Value Chain. A Gender and Social Inclusion Study will be carried out as part of VC and market analysis to better capture women’s needs and constrains. Barriers for women’s participation and benefitting from the programme will be identified during the Study and appropriate solutions will be proposed. Overall the Project would enhance women’s entry to the value chain, access to market and thereby enable them to accumulate human, social, physical and financial assets.</p> <p>The project would enhance women’s participation and voice in decision-making by setting a target of 30% female for individual association//groups/cooperative members participating in the Project and will encourage women participation in decision-making bodies/committees. The project will support the introduction of time and labour saving technologies that reduce drudgery for women.</p>
<p>3. The project design report includes one paragraph in the targeting section that explains what the project will deliver from a gender perspective.</p> <p>4. The project design report describes the key elements for operationalizing the gender strategy, with respect to the relevant project components.</p>	<p>Yes. The gender-related and social inclusion aspects of the Project are summarized in the section on project area and target group.</p> <p>The Gender and Social Inclusion Study will be undertaken in the 11 district of the project area. The study will be carried out at start up to further (i) identify the distinctive characteristics of male and female producers of different poverty levels; (ii) identify opportunities and measures required to promote their inclusion in the value chains and the use and (iii) mainstream on this basis gender and inclusion issues into project implementation. Findings from the study will inform a Gender Strategy and Implementation Action Plan which will include actions to improve production and develop market linkages, as well as activities designed to expand women’s and poorer households’ access to and control over capital, land, knowledge and support services.</p>
<p>5. The design document describes - and the project implements - operational measures to ensure gender- equitable participation in, and benefit from, project activities. These will generally include:</p>	

Allocating adequate human and financial resources to implement the gender strategy

The Gender Action Plan will be prepared in the first year and reviewed in subsequent years to ensure that the project retains a strong focus on promoting women's access to financial resources. All actions identified in the Gender Strategy have been properly costed and budgeted. A Gender and Community Development Focal Person (GCDFP) will be appointed as part of the Project Management Unit (PMU) to ensure that women and youth are participating in the project activities as equal partners, and that issues specifically related to women and youth are being adequately addressed. The programme will support training of staff and partners on gender and social inclusion. Particularly participatory approaches and demand driven development principles and actions.

5.2 Ensuring and supporting women's active participation in project-related activities, decision-making bodies and committees, including setting specific targets for participation

This will be achieved through the use of a strong mobilization strategy and sensitization activities at start-up of the Project and also during implementation. Gender sensitization would be part of the process of engagement with the communities. Women should be at least 30% of individual association/groups/cooperative members and at least 30% of women should be registered as participants to relevant training organized.

5.3 Ensuring that project/programme management arrangements (composition of the project management unit/programme coordination unit, project terms of reference for staff and implementing partners, etc.) reflect attention to gender equality and women's empowerment concerns

The terms of reference (TOR) for the PMU will reflect responsibility for gender focus and social inclusion and supervision of the overall work of the (GCDFP) in the PMU. Capacity of the project implementers (and partners) on Gender Equality and Women's Empowerment (GEWE) will be strengthened through trainings, exchange visits and implementation support. Gender equitable staffing has been proposed for the PMU. Responsibilities for gender mainstreaming have been detailed in TORs for the GCDFP in PMU. The Project Manager has overall responsibility for ensuring that the gender strategy is prepared and implemented. The GCDFP works in close collaboration with the Communication and Knowledge Management Officer, responsible for public sensitization on gender and for organizing experience sharing workshops to identify, document and disseminate good practices on gender mainstreaming.

5.4 Identifying opportunities to support strategic partnerships with government and others development organizations for networking and policy dialogue

GTWDP is built on a strong partnership base bringing together alongside the Government of Turkey and lesson learned from previous and current interventions to support women's economic empowerment. It is particularly relevant the work of the "Department of Women in Rural Development" was established in 1997 in the central ministry (MFAL) to develop extension and education programs for women farmers. The programs are carried out nationwide. The program topics include both on commercial agricultural production (dairy production, apiculture, greenhouse production, horticultural production, organic agriculture etc.) as well as home economics. MFAL is collaborating with Ministry of Family and Social Policies, Union of Chamber of Agricultural Producers, KOSGEB (Agency for Small and Medium Scale Enterprises) and ISKUR (Agency for Employment) providing training courses on agriculture and livestock as well as gender equality, individual rights and freedom, collective action, entrepreneurship, climate change. Within the framework of MFAL and DGRV (German



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Cooperative and Raiffeisen Confederation), members of 67 women cooperatives were trained on “entrepreneurial cooperative movement”.

6. The project’s logical framework, M&E, MIS and learning systems specify in design – and project M&E unit collects, analyses and interprets sex- and age-disaggregated performance and impact data, including specific indicators on gender equality and women’s empowerment.

The baseline survey will include a gender analysis. All relevant log frame indicators (i.e., all those dealing with people) will be gender-disaggregated.

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## Appendix 3: Country performance and lessons learned

### Country Performance

1. Since 1982 IFAD has financed nine projects in Turkey with total value of USD610.2 million of which USD170 million was IFAD contribution. IFAD's strategy over the past two decades has largely focused on multicomponent rural development in area-based projects in poorest regions/provinces, aiming to provide comprehensive support to targeted villages according to their identified needs and with heavy emphasis on increasing agricultural productivity. The current government partners are: i) Ministry of Development; ii) Undersecretariat of Treasury; iii) Ministry of Food Agriculture and Livestock iv) Ministry of Forestry and Water Affairs ; and (v) Turkish International Development Agency (TIKA).

2. Since the 2006 development of the COSOP, access to markets and employment creation were added to the above-mentioned objectives. This COSOP and its Addendum (2011-2012) emphasised: i) profitability and marketability in agricultural interventions; ii) taking advantage of site-specific opportunities in terms of sustainable natural resource use, market linkages and private sector involvement; iii) support to SMEs to establish market linkages and increase self-employment and jobs and iv) an exclusive focus on the North and South Eastern provinces where poverty is widespread

3. In May 2014, Turkey was selected by NEN to commission a study about IFAD involvement in MICs. The study was developed in full cooperation with the Turkish partners, including Ministry of Food Agriculture and Livestock (MFAL), Treasury, Ministry of Development, Ministry of Forestry and Water Affairs (MFWA), Turkish International Cooperation Agency (TIKA), and other main donors such as the . The study constitutes the framework of IFAD-GOT partnership for the next six years (two PBAS cycles).

4. In the past, problems were experienced by IFAD (and other donors such as the World Bank), regarding delays in declaring projects effective, slow rates of disbursement, and difficulties in maintaining the flow of funds – including counterpart funds. These have long been overcome. On the IFAD, side these had been addressed through direct supervision and implementation support by IFAD which continues, now with improved participation from implementing agencies. Support was provided by the UNDP as under a General Service Agreement on procurement and funds flow, and capacity building at MFAL The government has also taken remedial initiatives that resulted in a decrease in the time required for declaration of effectiveness. While some delays are still experienced these are not due to institutional shortcomings but are related to changing socio-economic conditions of the beneficiaries. Counterpart funding is no longer an issue. A re-alignment of institutional responsibility for Project implementation has been modified where in the most recent project, MRWSP (2011), implementation management was mainstreamed into the client's (OGM/MFWA) field operations through in-house PMUs with seconded staff.

5. The restructuring of MFAL (ex-MARA) in 2012 resulted in the relocation of the implementation responsibility for all international projects to the General Directorate of Agrarian Reform (GDAR) that is currently the implementation counterpart of IFAD for AKADP as well as the GTWDP under preparation. The proven technical competency and expertise of GDAR in implementing complex donor funded projects (several by the WB) is of considerable added value for IFAD's operations in Turkey. The bureaucracy-burdened EU resources earmarked for agriculture (IPADR) are disbursed through robust mechanisms under the control of GDAR. The budget of GDAR in 2015 is over USD700 million. This endorsed capacity has removed the need to use intermediary service providers such as UNDP for procurement and accelerating the flow of funds.

6. Two projects have been completed in 2013 and in 2014: Sivas Erzincan Development Project (SEDP) and Diyarbakir, Batman and Siirt Development Project (DBSDP). Their PCRs have indicated that both projects have substantially contributed to the creation of physical assets of the rural poor, both individually and collectively, and at village, farmer organization and SME levels. In the case of

SEDP, crop yields increased significantly e.g. sugar beet yield increased from 50 to 70 tons/ha, grapes from 2.3 tons/ha to 4.9 tons/ha and wheat yields from about 2 tons to an average of 5 tons per hectare. With an average holding size of 3 ha, increase in yields and decrease in operations cost the average net income increase due to irrigation would be USD 27 000 equivalent with project. The project provided support to a number of farmers' organizations, including associations and cooperatives to upgrade their service delivery to members. The average dairy farmer increased the herd size from 9 to 12 cows, increased milk production/cow/annum from 1 774 to 2 371 litre and as a result increased the amount received for marketing milk production through Sivas Cattle Breeders Association from USD 300 to USD 1000/annum. The result of the economic feasibility of dairy farming based on data pertaining to a 30-head operation showed an Internal Rate of Return (IRR) of 20%. The bee-keeping value chain SEDP grant contributions resulted in increase in honey production per hive from 4 kg to 8.3 kg of honey. The estimated average net income from apiculture is around USD 1220 per household.

7. The Sivas project has also created the favourable conditions for farmers' eligibility to the EU-funded Instrument for Pre-accession Rural Development (IPARD) support. Two village farmers in Sivas already qualified to receive TKDK (EU-IPARD Program Implementing Agency) assistance, one of whom was a SEDP beneficiary.

8. In the case of Diyarbakir Batman Siirt Development Project (DBSDP): i) the IRR from investing in new almond orchards with drip irrigation system was 42% and the income for the farmer was estimated at about USD 14400 per hectare. For new vineyard orchards using high-wire cultivation and drip irrigation, the FIRR was estimated at 25%; the net return for 1 Ha of vineyards at maturity is USD 9700; ii) SME grant investments have generated an estimated 180 part and full time jobs, predominantly for women. Investment support to silk production and processing primarily benefited some 450 women involved in cocoon production as well as some 50 women involved in silk processing and manufacture.

9. There are two on-going projects, the Ardahan-Kars-Artvin Development Project (AKADP) and the Murat River Watershed Rehabilitation Project (MRWDP). The AKADP, in its fourth year of implementation, is behind schedule with only 23.5% of the IFAD loan disbursed. This unsatisfactory performance is due to the remote location of the project that also effects staff shortages and their high turnover, and short rehabilitation/construction season. Perturbations in the livestock market have impacted the smallholders appetite for investment. Despite these handicaps, since mid-2013, the Project has gained momentum and has progressed well, ranging from demonstrations to co-financed investments. Mission supervisions confirm that the provision of matching grants for the equipment and machinery and milk collection centres (operated by cooperatives) increased and stabilized farm gate prices and availability of feed and livestock drinking water in the pastures has improved productivity.

10. The fourth project, MRWDP, is the only IFAD-supported project with the MFAL. It entered into force on 27 August 2013. Project implementation during the first year is proceeding satisfactorily. As per appraisal estimate most project activities are focused on organization of the beneficiaries, training and preparation of the first three micro catchments plans in full collaboration and consensus of the beneficiaries. Following the preparation of the plans, the following works have been completed: 360 hectares of erosion control, 200 hectares of afforestation, and 107 hectares of oak rehabilitation. Disbursement reached 9.6% as at 24 November 2014.

11. Beyond IFAD portfolio in the country, and given the increased level of Turkey's ODA, the government representatives and IFAD agreed to expand the partnership taking advantage of Turkey's role evolving as donor country and a borrower. In this regard, NEN is currently piloting a collaborative capacity building program in partnership with the TIKA in favour of staff from IFAD-supported projects in Morocco, Sudan, Tunisia and Yemen. Fourteen participants were trained in November 2014 at the Turkish research centers on crop and dairy yield improvement, water management, and post-harvest management. NEN and TIKA have agreed to expand the partnership initiative to other themes and other countries of mutual interest. In addition, TIKA would like to explore potential project co-financing in Africa, Arab region, Asia and Eastern Europe and Central Asia.

12. **Flow of Funds and Procurement.** Cumulative experience from IFAD's portfolio indicates that all future Project designs should be explicit in specifying effective arrangements for the flow of funds for implementation as well as procedures for the procurement of goods and services. The national budget process has precluded access to development funds in the first quarter of a calendar year, a feature that has had substantial adverse repercussions to date on disbursements. (The IFAD Office of Evaluation's mid-term evaluation of the Ordu-Giresun Rural Development Project estimated the "disbursement lag" to be at 35% relative to the typical IFAD disbursement model.)

13. To facilitate the timely flow of funds and accelerate procurement activities, a pilot initiative was initiated in 2005 in which UNDP has acted under contract as a third party to facilitate the administration of the IFAD-sponsored Sivas-Erzincan Development Project. This mechanism has proved appropriate and effective in the circumstances but is clearly suboptimal with regard to national institutional development and additional overhead costs, which under the prevailing circumstances would have more impact if used for capacity building at MFAL. It has been concluded in full agreement with the MFAL that GTWDP would not use such services.

14. **Functional Design.** There is a need to avoid over-complexity in Project design and consequent institutional arrangements that depend on inter-agency co-ordination. With the exception of the former Agricultural Extension and Applied Research Project, the development strategy for IFAD has emphasized an integrated, area-based approach, which has been shown to be difficult to implement in the Turkish context. The strategy has led to the involvement of multiple implementing organizations, each with its own responsibility and budget. Efficient interagency co-ordination and even interdepartmental collaboration within the same agency have proved problematic, resulting in serial implementation delays. (The appraisal report for the Sivas-Erzincan Development Project refers to "time overruns" of between 22% and 33% for IFAD-funded projects.) To the extent possible in the design of future projects, the oversight and management of implementation should be entrusted to one department or branch within one ministry, and their extensions in the provinces (i.e. the field).

15. **Integrated Management Arrangements.** The previous and ongoing IFAD-supported projects have featured temporary "semi-detached" Project management units that have not been integrated fully into Government structures. The potential for capacity building of the technical cadres cannot be realized with such configurations, given frequent changes of staff, the avoidance of creating new posts in the government service and the problems associated with the role of contracted staff in a very large civil service, particularly with delegated financial powers. The alternative approach, taken in the present design, is to embed Project management within an appropriate Government section capacitated as needed for the extra work entailed.

16. **Institutional Capacity.** It has been learned in Turkey, as elsewhere, that objectives should be set realistically and based on activities that can be influenced more or less directly by the executing authority without undue reliance on the performance of external agencies, unless such performance can be linked to clearly-defined contractual obligations from a service provider. As a UMIC, Turkey has a burgeoning private sector capable of providing Project services on contract, including delivery in remote rural areas given a viable business proposition. NGO's however, appears to have a limited potential role as social and natural resource service providers.

17. **Land Use and Administration.** Earlier projects have shown that the interrelated issues of land condition, management and sustainable use turn on the availability of an accurate database. In the GTWDP area, the registration of agricultural land has been completed for most villages, including the private plots that lie in the state-owned "gazetted" forests. The GDAR has among the most capable land management monitoring systems in the world, with the fully operational TARBIL management system.

18. **Lessons Learned from other Projects.** The GTWDP builds on the experience gained over 9 projects across a wide range of landscapes. All designs have embraced participatory approaches with menu-based interventions. In similar terrain to GTWSP, the MRWRP, elements of natural resource conservation are coupled with productivity and income enhancing activities for the poor communities

while training these beneficiaries in sustainable natural resource management. Capacity building activities for the agencies are also carried out.

19. The below summarizes the six lessons learned from the 7 completed and 2 ongoing projects:

- Existing administrative or community dynamics, with acceptable risks of elite capture, often need to be exploited to the benefit of project objectives to accommodate the needs of women and the poorer households.
- Start-up times can be long therefore a minimum of seven years is needed for implementation to compensate.
- Changing mind sets steeped in tradition requires lead times for training and capacity building to explain and demonstrate at length the anticipated changes and their benefits and the GTWDP envisages an intensive program of awareness raising and capacity building in the first year further justifies a seven year implementation period.
- Generally it takes more than the span of one project to develop and sustain new processes and skills to change entrenched patterns of livelihood
- Policies related to water usufructory rights and responsibilities at the local level need careful analysis in order to best use productive investments given the challenges presented by climate change and possibly enabling legislative action in advance of a natural resources management project.
- The income, consequently welfare, of poor farming households depends on the shift toward commercial or semi-commercial production of products supported by introducing farming-as-a business and linkages to upstream value chains.

20. The above main lessons are dealt with in the GTWDP design, as well as other important issues such as poverty focus in the UMIC context and gender sensitization. Genuine participatory planning and implementation is key for the project success. The project teams in the field will comprise both multidisciplinary as well as socio-economic capabilities and approach the community together and segregated in different gender and wealth groups.

21. The Project will be able to improve livelihoods for the weaker strata of the in the involved villages and introduce new ways of decision-making as regards on-farm production. Project interventions will target livelihoods and natural resource management.

22. Impact monitoring forms a vital element in the Project where the M&E and KM systems of the project would interface with the TARBIL of the MFAL in order to generate information that would best guide implementation of both the GTWDP as well as the design of a project in Phase 2 of the programme. The role of IFAD as a technical service provider would be further enhanced under such an arrangement.

## Annex 1: SEDP impact on yield increase for fruits and vegetables (Impact Assessment May 2011)

### Crops

**Table 4: Farmer's income from dry bean, before and after Project**

Production components	Before	After	Increase
a. Area sown (ha) <sup>1</sup>	120	300	180
b. No. of members <sup>1</sup>	72	266	194
c. Average yield (ton/ha) <sup>1</sup>	2.5	3.25	0.75
d. Total production by Association (ton)(a x c)	300	975	675
e. Price (TL/ton) <sup>1</sup>	3,250	5,500 <sup>2</sup>	2,250
f. Total income (TL)(d x e)	975,000	5,363,000	4,388,000
g. Total income/farmer (TL)(f / a)	8,125	17,877	9,752
h. Av. acreage/farmer (ha)(a / b)	1.67	1.13	-0.54
i. Expense/ha (TL) <sup>1</sup>	1,250	1,250	-
j. Expense/farmer (TL)(h x i)	2,087	1,413	-674
Net income of farmers (TL)(g - j)	6,038	16,464	10,426

<sup>1</sup> ECDBA statistics; <sup>2</sup> treated dry bean

The research conducted earlier in the Project area by research institutes and universities indicated that it is possible to achieve yield increases for some crops as high as 2.5 folds in irrigated conditions compared to that of rainfed conditions.

**Table 5: Farmer's income from irrigated winter wheat (on average holding of 3 ha)**

	Rainfed	Irrigated
Wheat yield ton/ha	2	5
Total production (ton/3 ha)	6	15
Average wheat price TL /ton	700	700
Farmer's total income (TL/3 ha)	4,200	10,500
Farmer's total expenses (TL/3 ha)	1,200	1,500
Farmer's net income from the holding (TL/3 ha)	3,000	9,000

**Table 6: Farmer's income from field tomato**

Average tomato yield (ton/ha)	50 <sup>1</sup>
Total production (ton/3 ha)	1,500
Average farm gate price (TL/ton)	500 <sup>2</sup>
Farmer's income (TL /3 ha)	75,000
Farmer's expenses (TL/3 ha)	15,000 <sup>3</sup>
Farmers' net income (TL/3 ha)	60,000
Farmer's net income from his holding (TL/3 ha)	60,000

<sup>1</sup> According to SDPA and EDPA statistics, tomato yields are 43,430 and 54,670 ton/ha, respectively.

<sup>2</sup> Interviews with SDPA and EDPA officers and farmers.

<sup>3</sup> Assumption based on discussions with farmers (4 times of higher than dry bean production due to more irrigation, labor, and fertilizer).

The increase in the farm gate price for milk and honey was insignificant in the Project area mainly due to unmet quality and hygiene criteria set by the associations. The farm gate price of treated and packed dry bean was 69% more than untreated dry bean (5.50 and 3.25 TL/kg respectively).

Available studies and direct interviews with farmers using on-farm improved irrigation technology attested to a significant improvement in crop yields depending on location. For example:

	Before	After
sugar beet	50 ton/ha	70 ton/ha
Tomato (potential)	2 000 kg/Decare	up to 7 000 kg/Decare
grapes	275 kg/Decare	491 kg/Decare
apple	1 000 kg/Decare	1 200 kg/Decare
wheat	2 ton/ha	5 ton/ha

Irrigation investment has also leads to reduced production costs for most crops in both water delivery costs (savings on cost of electricity for pumping by an average of about TL 25 000/annum) and in labour requirement (much less labour is needed to control water under sprinkler and drip systems, compared to the old flood irrigation system).

**Pro-Poor Value Chain.** While the experience of SEDP is worthwhile and has resulted in notable achievements there are a number of consideration that should be taken into consideration in future replication of this experience:

- (i) it is necessary that the selection of supply chain to be supported and the support of the institutions involved be well balanced to ensure the promotion of commercial agriculture without losing sights of the need of the poorer farmers (the primary target groups) and the requirements of the pro-poor institutions (e.g. the Agriculture Development Cooperatives);
- (ii) better effectiveness and poverty impact could have been achieved if the project was more focused in the number of value chains supported, and more focused geographically to ensure better complementarity and synergies with the Village Development Component;
- (iii) notwithstanding the addition at design of a secondary target group, Value Chain interventions for the purpose of IFAD interventions should ensure that the selected supply chains embody robust linkages with poorer farmers; and that these linkages are promoted and supported in design and throughout implementation.

## Dairy

Average herd size in both provinces is 15 head/household. This result was found to be valid for the 3,210 farmers, the total number of members of the CBA in both provinces.

**Table 7: Comparison of before and after Project annual milk yields (kg/cow).**

Province	Before the Project	After the Project	Increase	
			Kg	%
Sivas	1,858	3,040	1,182	64
Erzincan	1,942	3,180	1,238	64
Average	1,900	3,100	1,200	64



**Table 8: Farmer's income from milk, before and after the Project.**

Dairy production components	Before the Project	After the Project
a. Annual expenses per cow (TL) <sup>1</sup>	1,000	1,500
b. No. of cows/farmer/holding <sup>1</sup>	15	15
c. Annual expenses of farmer/holding (TL)(a x b)	15,000	22,500
d. Annual milk prod./cow (liters) <sup>1</sup>	1,900	3,100
e. Annual milk prod./farmer (liters)(b x d)	28,500	46,500
f. Price of milk (TL/kg) <sup>1</sup>	0.65	0.75
g. Gross annual income of farmer(TL)(e x f)	18,525	34,875
Net income of farmer (TL)(g – c)	3,525	12,375

<sup>1</sup> ECBA and SCBA statistics

### Beekeeping

The number of members of the association increased from 470 to 1 630. Pollen and propolis production are two other income-generating outputs that were introduced by Project.

A total of 7 tons of pollen with a price of 25,000 TL/ton and 1 ton propolis with a price of 80,000 TL/ton were harvested annually. This was not included in the income calculations because only some of the farmers had the beehives with traps (total 1000 for harvesting of pollen & propolis). These results strongly suggest that the beekeepers should be supported to have these sophisticated beehives to generate much higher incomes.

**Table 9: Beekeeper's income from honey, before and after Project**

Honey production components	Before the Project	After the Project	Increase
a. No. of members <sup>1</sup>	470	1,630	1,160
b. Honey/hive (kg) <sup>1</sup>	5	15	10
c. Beehive/farmer	111 <sup>1</sup>	111 <sup>1</sup>	-
d. Honey production (ton) [(a x b x c)/1000]	260	2,714	2,455
e. Honey prod./farmer (ton)(d / a)	0.55	1.66	1.12
f. Honey price (TL/ton) <sup>1</sup>	8,500	8,500	-
g. Farmer income (TL)(e x f)	4,675	14,153	9,478
h. Expense/ton honey (TL) <sup>1</sup>	1,500	1,500	-
i. Total expense of farmer (TL)(e x h)	825	2,490	1,665
Net income of farmers (TL) (g – i)	3,850	11,663	7,813

<sup>1</sup> SBA statistics

### World Bank: Anatolia Watershed Rehabilitation Project ( AWRP) Impact Assessment (2013):

The WB-GEF funded Anatolia Watershed Rehabilitation Project promoted community-level, sustainable natural resource management and planning, reducing pollution in the Black sea and increasing agricultural competitiveness and income in rural communities. As a result, between 2005 and the June 2012 , average household incomes in the target areas increased by 53 percent, soil fertility on sloping lands by more than 20 percent, and vegetation cover by 77 percent above the baseline. Over 30 percent of farmers adopted environmentally friendly agricultural practices and 60 percent adopted improved manure management techniques.

Sources: <http://www.worldbank.org/en/results/2013/04/10/improving-community-level-natural-resource-management>



## Appendix 4: Detailed project description

1. Field observations revealed that farmers complain about the buyers who pay low prices by blaming the poor quality of the produce and consider this as a drawback when marketing. However, while all blame the buyer, they are little aware that quality starts upstream in the VC. Poor quality is a consequence of factors before harvest and the rate of loss both in terms of quality and quantity is faster if the quality at harvest is below standard. The agronomic practices reflected in the quality at harvest include: i) inappropriate variety selection as per demand or agro-ecologic potential, ii) inadequate plant protection, iii) inappropriate irrigation and fertilization. Careless and amateur harvesting further erodes the quality. Farmers also complain that it is difficult to find buyers at scales that they take to market, and if they do, again being obligated to accept the low prices offered. They do not understand that, almost decoupled from quality, unless they increase both the volume of produce or act collectively, this dissatisfaction would continue. The components designed take these into consideration. Each component focuses on different parts of the VC. However, the components, and their subcomponents, are intricately woven with intrinsic complementarities so as to maximize the impact of each. Thus no specific balance is contemplated as regards the available resources for any one, where all individual interventions have been designed to multiply impact when used in any combination. Within this framework, the GTWDP would include three components namely: i) Agricultural Productivity and Natural Resource Management, ii) Market Access Enhancement, and iii) Project Management.

### Component 1. Agricultural Productivity and Natural Resource Management

2. The component would improve overall agricultural productivity, consequently profitability also as a result of better practices, by sustainable management of available and often scarce land and water resources in upland areas through good agricultural practices and climate smart investments that reduce external shocks. There would be two sub-components: 1.2. Improved Agricultural Productivity and Quality, and ii) Natural Resource Management. These two sub-components are intricately woven together with respect to complementarities in the interventions and their outcomes.

3. **Sub-component 1.1. Improved Agricultural Productivity and Quality** would focus upstream of the value chains of promising crops in the Project area and target gaps critical to improve productivity and quality while rapidly strengthening the smallholders' adaptive capacity to climate change. Following intensive awareness building on the objectives of the tools of the project, a menu of investments would be offered to the target beneficiaries with some catering specifically for women. The menu would be developed based on the guidance provided by the P/DDAs of the respective provinces and detailed discussions with various technical stakeholders and producers of all scales and gender. The menu would reflect the local improvement opportunities in agro-ecological characteristics of the project area, dominant production types and patterns, market conditions, specific needs and demands of the poor smallholders, availability of non-monetary resources such as human capital, available water and good soil, access to information and knowledge products and constraints of the seasonality of access that vary across different parts of the area. Close cooperation with the MFAL and private (e.g. agro-industry) agricultural research system would be established and maintained throughout Project implementation.

4. In the last 50 years, 2063 field crop varieties were registered out of which 46% was developed by the GDARes institutes by using local genetic material, 5% by universities and the remaining 49% by the private sector mainly based on adaptation trials with varieties developed in other countries (technology transfer). The varieties that were developed by the GDARes system are highly adopted by the producers (above 90% in wheat, barley, lentil and chickpea and standard vegetable varieties). However, there is still a 50% still gap for the seeds of hybrid vegetable varieties. In fruit production, 96.5% of the total are those that are registered by the GDARes research institutes following multi-year adaptation and agronomic trials. One of those is the "0900Ziraat" that is the earliest cherry variety in Europe. Only 2.4% of the fruit varieties are registered by the private sector through technology

transfer. Agricultural research institutes have been playing an important role mainly in technical innovations on the production side but almost no role on marketing and organizational innovations.

5. The menu would cover both the rainfed and irrigated areas and include the inputs, while remaining flexible to be amended in the light of Project implementation experience, particularly with respect to feedback from beneficiaries and local technical staff and service providers. This menu would include: i) the new crop varieties (e.g. dwarf or semi dwarf cherry varieties, disease resistant chick pea varieties); ii) modern growing techniques (e.g. production under plastic tunnels, high wire training system for vineyards, solarization in plastic tunnels); iii) water saving irrigation techniques supported by solar energy use (e.g. on-farm drip irrigation); iv) agronomic practices that would contribute to the increase in production volumes and improve uniformity for improving quality by the smallholders to help them to also capitalize on economies of scale. Integrated pest management (IPM) is rarely used in the Project area. Its use would be expanded through financing of equipment for GDAR for the early warning systems investments. The farmers would benefit from awareness building, practical and technical training and technological inputs (e.g. for biological control in plastic tunnels). The Project is also committed to Good Agricultural Practices and the GlobalGap that have become essential for accessing the higher value markets that cater to more mature and sophisticated consumers.

6. The Sub-component would support small-scale drip irrigation to improve water use efficiency in currently and newly irrigated areas where there are significant losses due to either primitive or open conveyance, generally in earth canals for flood irrigation, and lack of training and awareness, and to provide water for some rainfed areas. Drip irrigation systems would be provided by the Project for existing rainfed and irrigated areas.

7. The Project would support the construction of on-farm small water collection ponds under the second sub-component. Together with the area that would be opened to irrigation through these ponds (about 300 ha), the total area that would receive Project investment for small-scale irrigation would be about 1000 ha.

8. Matching Grants Program (MGP): The Project will have a MGP element to support, among others, the smallholders who elect to benefit from the above described interventions menu. The differentiation of the support by MGP would be based on the typology of the investors that would incentivize and give bonus for collective action, as through formal or informal groups. The details of the MGP would be set out in the PIM as below. However, these proportions will be revised during project implementation as and when needed to secure maximum benefits to the rural poor within their means:

- (a) 50% MGP contribution for individual and existing enterprises;
- (b) 70% for grant for new SMEs
- (c) 75% for FOs and informal groups

9. The MGP would be implemented using the Grant Manual The MGP would be based on eligible business plans prepared by the beneficiaries with the assistance of Project-sourced Business Development Services providers. The guidelines would benefit from the experience and lessons learned from the closed SEDP and DBSDP as well as the on-going AKADP and MRWSP where matching and/or contributory grants were used to incentivize the smallholders to invest in new crops and small collective enterprises.

10. Transparency and accountability measures for the MGP implementation and monitoring include at least the following: i) the PIM would be in place before implementation starts, the regular updates would be made when needed; ii) financial management rules of the Project would be applied to the MGP; iii) terms of reference for Project auditors would cover activities financed through the MGP; iv) regular and spot checks for evaluation of applications during supervision missions and v) matching grant terms and conditions would be publicly announced and information bulletins would be made available for the interested parties.

11. This jointly accumulated experience of IFAD and the MFAL as well as the national guidelines and legislation to identify the poorest of the poor would ensure effective targeting of the poorer smallholders. As such, while elite capture would be eliminated, those that have the capacity to guide as lead farmers would not be excluded particularly in demonstrating best practices. In the region, large farmers are considered as role models by the small and poor ones for technology use and as the opportunities avail, such large ones are emulated.

12. Activities under the sub-component would vary to fit the current agro-ecological and socio-economic conditions in each village as well as farmers' resources and needs and demands. They would also improve the climate adaptation capacity of the producers while also anticipating any impacts climate change may impose in the future. Design considerations for the small-scale irrigation would be: i) introducing technical and financial feasibility criteria as a determinant for the investment and ii) acceptance of the principles of cost sharing involving beneficiary contributions for all village infrastructure investments.

13. The current closed pressurized irrigation schemes (new one by KOP or older ones by DSI) have serious operation, maintenance and management problems. Following the completion of an irrigation scheme, if there is irrigation cooperative or WUAs association (mostly in large scale irrigation schemes which is not a case in the Project area except two groundwater irrigations which are not efficiently used due to high cost of pumping) the scheme is transferred to them. Otherwise, it is transferred to the village administration (under the village headman), or to the rural municipality mayor of district/small town depending on the locations of the settlements benefitting from irrigation.

14. The beneficiaries of irrigation schemes are legally obligated to repay all actual O&M expenditures incurred by DSI for irrigation investments. Proceeding along similar well established lines, in order to ensure the O&M, before starting any investment written agreement would be secured to ensure that the existing irrigation cooperative takes the O&M responsibility or if there is no organization, the beneficiaries of the investment would act collectively and establish a Water User Association (WUA) and commit themselves on O&M.

15. Comprehensive training and capacity building would be delivered through the Project's facilities, including refresher courses, tailored for men and women smallholders in the first year of implementation in order to maximize the benefits from the interventions in the succeeding years. Training and capacity building activities would include farmer exposure visits, on the job training courses, on-farm demonstrations and regular farmer meetings. Once the smallholders select the intervention(s) from the menu, they would be able to benefit from MGP based on a set of eligibility criteria that are geared to best support the activity.

16. The sub-component would also support activities to increase their productive potential of women, even elderly. Small-scale commercially-oriented poultry production has been identified as having potential since keeping poultry is an ever-present part of the rural life in Turkey that it is considered as an activity done solely by women. In the case of GTWDP, this tradition would be upgraded from the backyard and household consumption scale to a semi-commercial level, again in a natural setting. The system would not be designed to compete with the commercial poultry systems in the project provinces that are high input based and intensive but would target customers who are more health and environment conscious, not interested in factory farmed eggs and meat. Such mature and selective markets exist in the neighboring urban (including Ankara) and Mediterranean coastal areas.

17. In order to benefit from the support, the village women would be promoted through awareness raising activities to form voluntary groups of four to promote collective action and cost sharing as well as ensure critical mass of production. The groups would be trained in numerous topics that include but not limited to production, marketing and branding with due attention to biosecurity i.e. avian influenza, and health threats for caretakers, etc. The incubation chambers would be provided using the CGS and fertilized eggs and veterinary drugs and supplements (particularly for Newcastle Disease and de-worming) would be provided for start-up. The flocks are managed using indigenous

knowledge that is insufficient and/or irrelevant for the new production system. The new knowledge and skills crucial for success would be provided by the Project as soon as these women groups are identified. Additional feed would be needed, however many provide the grain (e.g., wheat, maize, barley) on-farm, and project interventions to increase the yields would meet the additional demand. The beneficiary households would be responsible to construct the simple enclosures for the chickens. The experience of villagers in using locally available materials and knowledge of basic construction techniques used around the household (barn, fence, construction and repair, etc.) would be sufficient. Nevertheless, basic technical assistance would be provided by the Project.

18. The Project would offer comprehensive training and capacity building tailored for the smallholders (men and women) in the first year of the implementation, to maximize the benefits from the interventions in the succeeding years as investments take place. Refresher/repeater courses would be provided that take into consideration that new groups are to be supported every year of project implementation. Training and capacity building activities will include farmer exposure visits, on the job training, on-farm demonstrations and regular farmer meetings.

19. The Project has made provisions that would compensate for any shortcomings of reliable and effective extension provision in the Project area. Five Farmer Support Teams would be formed, each being responsible for a set of villages belonging to one or more target districts. The FSTs would provide advisory services through weekly face-to-face interaction in each village, conducting and monitoring on-farm demonstrations, collecting applications for interventions etc. At start-up of the project, i.e. during initial awareness raising activities, the village residents would identify at least two persons to act as “contact persons”, one being a woman. These would assist the mukhtars (village headmen) to coordinate with the FST in making arrangements in the village in order for the FST to use their time efficiently. Once the FSTs are in place, at start-up, through them or under their local coordination, the Project would offer a comprehensive training for all households comprising: i) exposure visits (e.g. to SMEs, companies, research institutes, FOs, other project sites), ii) courses (including marketing, farming as a business, branding, etc.).

20. **ITC use.** Computer and Internet access have become commonly available and are fairly widely used also by farmers, at least in the more advanced Aegean and Mediterranean regions, although there is still a clear divide between urban and rural households in Internet use, at 49% and 24% respectively. In some remote regions, connectivity is there, but not all farmers have the capacities and means for utilizing these technologies. About 45% of those farmers who have Internet use it through their cell phones instead of computers<sup>56</sup>. Private sector provides significant support to the ITC use in the agricultural/rural sector. One the GSM operators in Turkey<sup>57</sup>, recently launched a project (AgroMed) that provides agricultural consultancy tailored to farmers’ specific needs. The service is the first service of its kind, providing farmers with required information based on crops, specific territories, and soil characteristics through SMS. A call center, communication hubs, and agricultural engineers support it, while field trips are required. AgroMed aims to increase farmers’ revenues by 10%, while reducing costs by 20% by offering assistance in all aspects of farming from soil analysis, planting planning, and pesticides to stock farming along the agricultural value chain. MFAL established Agricultural Web TV through which learning videos on a wide range of agricultural topics are accessible to anybody with a reasonably fast Internet access.

21. **Sub-component 1.2. Natural Resource Management** would promote best practices and introduce adaptation measures for climate resilient investments on agricultural and grazing lands. The rough topography and climate makes the Project area prone to erosion that has been aggravated by forest and rangeland degradation over several decades of overharvesting for fuel and fodder and overgrazing, mainly by small ruminants. However, pressures has been gradually decreasing due to: i) the behavioral changes both on the community and foresters’ side as a result of participatory approaches to natural resource management on forest lands, and ii) the reduction in the number of small ruminants due to socio-economic reasons including difficulties in finding shepherds. Therefore,

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<sup>56</sup> Tarımsal Pazarlama Eğitim Yayıncılık Limited Şti, Istanbul. Use of ITCs by Turkish Farmers (Turkish)

<sup>57</sup> nccr Trade Regulation, December 2013 Working Paper. Agricultural Innovations in Turkey.

the erosion and land degradation levels in the area are still reversible with the resident potential for rehabilitation being addressed by the Directorate of Forestry (OGM) of MFWA. The agency is investing in NRM in the uplands through seven Integrated Micro-catchment (MC) Rehabilitation Projects in Göksu Watershed. These projects link MC area rehabilitation with improving livelihoods of the MC communities using the approaches that the MRWSP is helping to mainstream at OGM. The GTWDP would collaborate with OGM in implementation of their agricultural interventions foreseen in the MC plans. These would include providing training on sustainable agricultural practices in fragile environments, inputs such as fruit tree or vegetable seedlings of appropriate new varieties in demand for the terraces that OGM are constructing on private lands. Where water is available, such terraces are planned with investments for small ponds and irrigation. Outside of the 7 MCs, farmers also make terraces on their land by hiring machinery. However, these are poorly constructed in terms of technical standards since the bulldozer operator is the decision maker. Project would construct terraces with the required technical standards on private land if demanded by the smallholders and also assist them in production decisions and provide necessary plant material. Furthermore, many manually made terraces can be found in the project area that would also be used by the smallholders when benefitting from the GTWDP.

22. Local livestock owners and the Yörüks follow the flora, grazing at different elevations as the season advances to take the advantage of the change in the flora. Some uplands above 1 800 m are used for transhumant livestock, usually goats. For hundreds of years, at the beginning of summer, nomads of the Taurus Mountains, known as Yörüks, make the long trek from the hot coastal plains to the cool prairies and high rangelands of the western/central Taurus Mountains.

23. The investments made under the Sub-component would also contribute to improving the standards of living of the Yörüks, building on their identity and unique culture while assisting them to organize for improved management of the common resources. The Yörüks would be informed of all project activities and would be integrated into all capacity building, training and awareness raising programs to the extent they are available to participate while in the Project area. The Project Baseline Survey would collect all relevant socio-economic information on the Yörüks to improve targeting.

24. They are fully mobile, carrying their entire homes and belongings, livestock sheep and goats and extended families. They set up tents only returning to the lowland/coastal villages in the autumn before the first snows and or before schools start. Their annual routes are traditional and the agreements made with the villages cover length of stay and number of animals to share the pasture. During their stay (usually) pay a fee to the village(s) for the privilege of grazing access to the rangelands and make cheese and butter to be marketed upon their return to the lowlands of their origin, in the more urban areas.

25. In the late '70s and early 80s The Government had a nationwide settlement program where the nomads were given free land to encourage them to settle permanently. However, in the Project area about 150 families that have about 30.000 small ruminants still pursue the nomadic life<sup>58</sup>. The investments made under the Sub-component in the rangelands would also contribute to improving the standards of living of the Yörüks, building on their identity and unique culture while assisting them to organize for improved management of the common resources. The M&E would be designed to capture the Yörüks' perceptions and perspectives of the investment plans and their opinions on the outcomes.

26. In the context of a trend of degradation of the natural resources, and with a tipping point coming closer, there is a need for reducing negativity on the ecosystem and organizing the rational use of village grazing lands. Rangelands outside of the gazetted forest area are registered with local rangeland committees based on Rangeland Law No. 4342. The law allows improvements to be made with the consent of the traditional users who have full authority over rangeland management and controlled grazing. However, very little progress has been achieved to date. The Project would assist

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<sup>58</sup> Yörüks and Livestock Production 2014. Presentation prepared by M. Sadık Oturaç, Konya Provincial Directorate of Food Agriculture and Livestock.

to develop participatory grazing plans along with the inputs from Yörüks as well as for investments in overnight shelters for shepherds (to protect from wild animals and inclement weather), scratch posts, salt licks etc. Portable mobile solar energy (as panels) would help to improve quality of for those who use highland rangelands by meeting their energy needs. The electricity would be used for a multitude of purposes ranging from powering milking machines that improve milk productivity and hygiene and reduce the women's burden of milking hundreds of animals manually, to powering pumps for drinking water as well as basic lighting needs during their 3-4 month stay. Low cost prefabricated steel troughs would provide clean drinking livestock water access that would reduce animal travelling distances and reduce risks of disease from contamination. Where available, water would be taken by gravity or pumping from the collection ponds, shallow wells or cisterns made the farmers to the troughs. The solar energy investments of the farmers or villagers would be accessible through MGP. The livestock drinking water troughs that would be delivered by the PDAs. The village administrations that are legally responsible for their rangeland would undertake the responsibility for the required operation and maintenance of the rangeland infrastructure. The portable solar panels would be delivered to the village administrations that would be responsible for their use as common village infrastructure.

27. Small ponds would be constructed by the Project in order to harvest water from small water sources in the upland areas to be used to irrigate about 1 ha of previously rainfed land. It is estimated that a total of about 300 ha of newly irrigated areas could be used for crops like strawberry, dry beans, medicinal and aromatic plants (MAPs), and for vegetable production under plastic tunnel. Evidence in similar areas of Turkey, specifically in the DBSDP area, indicates that the investments as above reinforce the adoption of NRM rehabilitation investments and their sustainable use by the natural resource users.

28. Articles 715 and 756 of the Civil Code, when evaluated together indicate that, except for springs on private land, surface and groundwater resources cannot be privately owned, but are subject to user rights which are granted for beneficial use only, such as domestic and agricultural purpose, fishing etc. Within this framework, several households would benefit from the ponds, since the water would be efficiently used through a drip irrigation system. Solar power would be provided for pumping water. The investments for the ponds, drip irrigation equipment and materials and solar energy for the pumps would be supported through the CGS, based on the demands of the farmers and the feasibility of the combined investment.

29. Evidence in similar areas of Turkey indicates that the investments as above reinforce the adoption of NRM rehabilitation investments and their sustainable use by the natural resource users.

30. **Component Implementation.** The PDAs in Konya and Karaman, through their PPMUs, would be responsible for the management of the Component. The PPMU would prepare the work plans for the FSTs based on seasonal requirements and logistical constraints, if any. Each FST would be allocated a rented vehicle on a full time basis to ensure maximum mobility and flexibility in their interactions with the beneficiaries. The staff of the DDAs would complement the FSTs tasks as necessary, specifically in case of need of specific expertise not available in the team. The FSTs would initiate and sustain regular contact with the beneficiaries on behalf of the PPMU.

31. The 'hardware' requirements of the Component such as procurement or renting of vehicles, equipment and materials, and agricultural inputs would be carried out and distributed by each PPMU based on the recommendations of the CPMU and according to the guidelines in the PIM. The two PPMUs would collaborate on their respective activity thrusts to ensure coordination in the implementation of the AWPBs that are project –level. Procurement thresholds would be established in the Loan Agreement and reflected into the PIM.

32. The CPMU would carry out, with the assistance of TA as needed, a TNA for the project area as a whole. Under the overall leadership and monitoring of the CPMU, the PPMUs would i) develop training programs and study tours and exchange visits, and ii) developing and implementing training programs on natural resource management tailored for identified target groups including but not limited to government staff, farmers, women and children.



33. The PPMUs would coordinate with the Konya Regional Forestry Directorate to establish synergies to best utilize the terraces that are being constructed under the seven micro-catchment based projects in the project area. The FST that are in close contact with the villagers would ensure that GTWDP –supported investments in improving productivity dovetail with the new areas that are opened for agriculture by terracing on private lands.

34. Under Sub-component 1.1, the FSTs, under the overall guidance of the PPMU, would be primarily responsible for the provision of all advisory services including but not limited to: i) conducting farmer training needs assessments, ii) setting up on-farm demonstrations, iii) daily planning, implementation and dissemination of information, iv) providing inputs to the M&E system (including photos, video films, and v) conveying the issues expressed by the farmers to PPMUs that exceeds the team’s capacity to resolve. In each village, at least two persons would be identified by the resident community to act as “contact persons”, one being a woman, to coordinate with the FST and make necessary arrangements to allow the FST use their time in the village efficiently. The project area is well served by mobile telecommunications and good road infrastructure and regular communication to ensure timely interaction is not a constraint in planning.

35. The FSTs would work closely with the DDAs and the farmers in the selection of locations for the Early Warning Systems (EWS) that would be decided and procured by the CPMU to ensure the system fits the MIS of MFAL. The identification of beneficiaries that are interested to invest in piloting of the electrified fence to protect crops from boar. The FST would assist the farmers in their decisions given the high cost of the fencing and inform them regarding any risks. The procurement of the EWS would be by the CPMU.

36. Under Sub-component 1.2, with TA assistance, the PPMU would have overall responsibility for sensitizing all stakeholders as regards natural resource management. The FSTs would gather information on the needs and demands of villagers for i) the small ponds, ii) agricultural terraces, iii) improvements to the rangelands such as livestock drinking water facilities, shade, shepherd shelters, iv) portable solar energy units for the temporary dwellers in the summer pasture, and v) access roads to the pastures. The FSTs would also be responsible for assessing the demand for solar-powered irrigation pumps and the organizational structures such as a cooperative that would undertake such investments. The FSTs would coordinate closely with the District Forestry Offices in their respective areas to collaborate on the Integrated MC Rehabilitation Projects and identify the needs for support and synergy by the GTWDP. The collected information would be analyzed, reviewed for feasibility and collated by the PPMU to be sent to the CPMU for approval to invest. Such approvals would be contingent on the PPMUs, and consequently the investing party’s satisfactory arrangements regarding the operations and maintenance (O&M) of facilities, specifically in the case of groundwater pumps. The CPMU would undertake competitive tendering of all civil works as design-and-build packages that would be optimized cost, timing of delivery in view of the seasonal constraints, and ensure best quality for the money (QCB). The PPMU would be responsible for contract supervision of the civil works with support from CPMU as needed. Procurement thresholds would be established in the Loan Agreement and reflected into the PIM.

## **Component 2. Market Access Enhancement**

37. The added value of the Project would be to improve quantity and quality under Component 1 while under this Component 2, the incomes of the farmers would be increased through improved market knowledge and linkages. These would cover reduced post-harvest losses and value adding to accommodate market demands for quality, volume, regularity, homogeneity, range of varieties and packaging. The producers of fruits and vegetables (F&V) in the GTWDP area already reach the markets with their produce i.e. they are already semi-commercial. However, in order for these products of higher value to reach broader consumer markets, the Component would support capacity building and investments in the Project area. It would be commodity-focused, on F&V and MAPs identified during the design mission and the support would be given to: i) individual farm holdings, ii) FOs and informal producer groups, iii) new and existing micro enterprises and SMEs.

38. The Component would build on the untapped entrepreneurial capacity of the semi-commercial men and women smallholders who need the incremental push of the project to benefit from improved market access by marketing through formal producer organizations or informal groups. The formation of women's' groups would be promoted through special training and awareness raising programs. The Component would further integrate the smallholders to the Turkish retail sector and export markets for F&V where the predominantly urban consumers demand and are ready to pay more for sorted, packaged and branded F&V. The HORECA (Hotels, Restaurants and Caterers) that is a very large sector 100 km from the Project area, on the Mediterranean Coast, is selective in buying, and in order to appeal to these new markets small farmers and traders need to learn new skills, new techniques and new ways of obtaining information. Traceability and branding would be introduced, that when combined with improved market information would result in increased value of products sold. The CPMU would be responsible for the overall management of the component. The PPMUs would manage all field activities as described under the component's Implementation Arrangements.

39. There would be two sub components: 2.1. Capacity Building for Marketing, and 2.2. Value Chains Development.

40. **Sub-component 2.1. Capacity Building for Marketing** would improve the knowledge and skills of men and women small farmers and organizations (FOs) where they are members (e.g. development cooperatives, producers' associations). Such improvement is imperative for these producers to ensure remaining competitive and accelerate the shift from "semi-subsistence farming" to "farming as a business". This would be accomplished through extensive training and capacity building for producers and/or the FOs in order for them to make production and marketing decisions that are guided by the value chains of crops that they produce.

41. The Sub-component would also assist to raise awareness among all stakeholders on the critical importance of post-harvest activities. Training would be provided to women on food hygiene and safety, drying and sorting practices to reduce waste and improve quality, accounting, and marketing services. Access for producers to commercial extension would be facilitated through information provided by the FSTs. The support program of MFAL includes payments to the private advisors. There is a regulation that defines the conditions of providing services to the farmers by the private advisors e.g. a private advisor who works in organic farming area, can have contract with maximum 50 farmers who has at least 50 da of land. The government pays 600 TL/farmer for the services provided by the consultant. However, about 1/3<sup>rd</sup> is paid back to the government as various kinds of tax. The quality of the service is monitored by the PDAs through interviews and site visits to the farmers. Synergy would be ensured between the project activities and information services provided from on-going government and private sector programs such as those by the Chambers of Agriculture and Chambers of Trade in the two provinces.

42. All stakeholders would receive training in marketing channels with sales of F&V at farm gate being replaced by coordinated links between farmers, processors, retailers and others, particularly for the export sector and for supplies to local processors and supermarkets.

43. Expert service providers that have experience in also interacting with women farmers, under the coordination and guidance of the PPMUs, would carry out the awareness raising, capacity building and training either in the villages or as larger groups at public facilities. All such activities would be fully inclusive and tailored to target the individuals, gender, the young, households, existing FOs, enterprises, and where relevant, PDA staff. Courses designed for women would concentrate on the MAPs and dried grapes VCs where opportunities also reside for micro enterprises that could be operated by women. The PPMU would facilitate the access of the smallholders to on-going training programs conducted by the Ministry of Education through the Governors' Offices and Chambers of Trade. Synergy would be ensured between the project activities and services and those of other on-going government programs.

44. There are eight producer associations engaged at differing levels of aptitude in the F&V sector in the Project area, however, the marketing of fresh vegetables was not covered by the associations'

statutes before 2004, consequently provision of post-harvest services could not be provided. On the other hand, there are 50 agricultural development cooperatives and 7 Agricultural Producers' Associations in Konya and 76 in Karaman of which 11 are in the GTWDP area; unfortunately only four of these are active. Poor management combined with lack of member interest resulting from ineffective operations is vicious cycle that the Project would mobilize resources to break. In order to generate interest at the household level, female membership in the FOs would be promoted in line with the targets set by the Project.

45. The area, rather distant to the commercial hubs of Karaman, and particularly Konya suffers from lack of access to services that could promote their products and help the producers make market-driven commercial decisions. There are a multitude of services available but yet accessed by the target semi-commercial poor because of lack of knowledge, incentive and financial resources. All components of the project would complement each other in compensating for such fundamental shortcomings of these producers.

46. There are numerous Business Development Services (BDS) in Konya and Karaman province centers that the small holders have found difficult to access for the above reasons. There are also FO-specific service providers or large private producers that provide training. Some are private sector while others are under or affiliated with government:

- **KOSGEB** is the national SME development agency offering quality service and training such as the "Applied Entrepreneurship Training".
- **ARDSI** (Agriculture and Rural Development Support Institution) (under the MFAL, provides **information** meetings for farmers to understand better IPARD support.
- **KOP** (Konya Plain Project Regional Development Administration) under the Ministry of **Development** and assists the development of investment projects if requested by the relevant public institutions and organizations and is also providing financial and technical support according.
- **MEVKA** (**Mevlana** Development Agency) is a regional governmental organization and provides free information to investors and entrepreneurs.
- Furthermore, there are institutions are capable of providing training such as Universities, **Chambers of Commerce and Trade, Chambers of Agricultural Producers** and others:
- **UYMSIB** (Uludag Fresh Fruit and Vegetable Exporters' Association): It has more than 1,000 members and keeps exporters informed about F&V markets through the various seminars.
- **Alara Agri Business/Bursa**: The company is the largest fresh fig exporter in the world and the largest cherry exporter in Europe; up-to-date the company trained about 10,000 cherry producers.
- **DGRV** (German Cooperative and Raiffeisen Confederation): It is assisting MFAL in providing German cooperative know-how also to ADCs, especially through pragmatic training courses.

47. The market linkages of the smallholders in the Project area are individual-based and stagnant because most of the FOs is either dormant or struggling to remain active and the individuals' market coordination arrangements that integrate them into the food supply chain is relatively loose. Two key studies would be conducted in the first year of the Project, after start-up: i) a Gap Analysis/study for market linkages of the producers; ii) a Diagnostic Study for all FOs to investigate reasons for failure and/or being dormant and to identify positive aspects to dwell on for improvement. Both studies would develop recommendations and action plans. The assessment of the results of these by the CPMU would guide the extensive capacity building and training under the Sub-component. These studies would also pave the way for investments in VCs by individual smallholders, the women and youth as well as FOs and micro enterprises and SMEs.

48. The gap analysis would be conducted using TA to guide the potential investors and the Marketing Advisory Services (MAS) consultancy hired by the CPMU in future decisions regarding marketing. This analysis would form the backbone of the extensive training and capacity building again through TA, with inputs from the MAS, to develop the commercial orientation and business notions and skills of the upstream, primary producers of all crops. The FSTs and selected staff of the PDAs would also participate to improve their commercial notions. Particularly with the guidance of the MAS, a program of exposure visits open to all beneficiaries would be implemented by the PPMUs, under the overall guidance of the CPMU to ensure coordination between provinces.

49. The diagnostic survey would be conducted to assess the capacity and issues of all FOs in the project area. The results would be shared with members and the management of the FOs at consultative meetings organized by PPMUs. Following rigorous review of the survey's findings by the FOs, those interested in improving their service delivery to members would apply to respective PPMUs in the province that they register. Capacity development plans tailored for each applicant would be prepared with the assistance TA under the close monitoring of the PPMU.

50. The FOs that successfully apply the recommendations of the capacity development plans to transform into "participatory self-governing entities" would be entitled to project support. The institutional and financial obligations of this outcome would be tested or reviewed at an extra ordinary member/shareholders meeting that would be called by the chairman. Once the decision to proceed is affirmed at the meeting, such would be documented as evidence that FO wishes to use the Project's technical support and the financial from the matching grant proceeds allocated to enterprises.

51. The results of the baseline survey conducted at the start-up and initial contacts by the PPMU through the FSTs would assist in the development of a long list of producers with potential and appetite to commercialize though investing along various links of the value chain. Public extension staff in the PDA and private advisors, while often well trained in production techniques, has insufficient commercial notions and knowledge of marketing or post-harvest handling to guide the producers. The Sub-component would build capacity of other actors in the system such as local traders, intermediaries, processors, agricultural laborers, and cold storage facilities' managers.

52. **Sub-component 2.2 Value Chains Development** would finance, through the MGP, downstream investments by the beneficiaries in support of the marketing of the improved production and quality under Component 1. Service providers and enterprises that add value to the farm gate or those that provide services to existing and new VCs would be eligible to benefit. All support under the Sub-component would be delivered through the PPMU with close coordination with and under the supervision of the CPMU, particularly as regards the allocation and use of the MGS.

53. Initially, GTWDP would focus on 4 VCs to show success and promising implementation approaches and build replicable and scalable models. Cherry, dried grape, strawberry and MAPs were identified based on the: i) local production capacities; ii) the potential comparative advantages; iii) seasonality of supply and demand, iv) market access and productive potential of different locations in the area, and v) indigenous knowledge embedded in tradition. Provision is made under the Sub-component for Technical Assistance for identification of the new potential VCs.

54. The investment opportunities for cherry, dried grape, strawberry and MAPs would be examined in detail in Strategic Investment Plans (SIPs).

55. In full collaboration and participation of the beneficiaries, individually or through their associations, the PPMU would prepare SIPs for each of four identified VCs, using TA as needed. These SIPs would serve as an investment framework to guide Project support to the beneficiaries of differing scales in the VC and also undertake a thorough gender analysis where activities that specifically cater to women would be identified and pursued.

56. A SIP<sup>59</sup>, is a framework tool for reducing poverty that guide investments in the private sector and market economy context to understand the local interrelationships in order to improve efficiencies

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<sup>59</sup>Strategic investment Plan (SIP) concept was introduced by IFAD in Turkey in 2006. It was used in the DBSDP and SEDP.

in key agricultural commodity supply chains. Using a participatory approach to “every problem is an opportunity”, constraints and associated opportunities for business growth would be identified. A series of investment activities relevant to capture the opportunities would be developed and co-financed with the MGP. The SIPs would be put to action as investments based on Business Plans (BPs) that would be prepared by the potential investors comprising individuals, informal groups, FOs or SMEs. The BPs would be based on formats to be developed by the CPMU using the experience gained in the DBSDP and SEDP. Business Development Service (BDS) providers would be contracted by the PPMU to support the beneficiaries in the preparation of the BPs.

57. SIPs would be developed in full collaboration with the potential investors; i.e. mainly farmers and FOs, for cherries, grapes, strawberries and MAPs. Depending on the commodity and opportunities identified, the SIPs would guide investments for the following, individually or in any combination, on- or off-farm. The investment options for these VCs would take into consideration the following:

58. **Cherries** would be marketed fresh. Especially the late cherries in August get a good price, as no other region can offer cherries at that time. Only the very small cherries ( $\leq 18\text{mm}$ ) or the ones damaged by hail, used in fruit juice production. Cherry producers are generally small and focus on production, harvesting, some manual sorting; most ship to closest transfer points where 25 ton refrigerated trucks take over for shipment to distant and professional large-scale cold storage facilities. The cherries are cooled by intermediaries before being loaded on refrigerated trucks.

59. There are investment options in the project area to maintain the high quality of cherries. The Project would assist to explore: i) preliminary cooling with movable hydro-coolers, ii) mechanical or optical grading and sorting lines, iii) packing lines, iv) complete cold storage facilities, or v) refrigerated vans and simple packaging line.

60. **Strawberry** is a new crop for the area. They would be harvested by the farmers and sold at farm gate to be re-packed by the buyers / traders into chalets with 500 gram or 1 kg and larger wooden boxes of 5 kg. Since washing will increase moisture and cause the strawberries to spoil more rapidly, washing process is not applied for the strawberries.

61. The value chain for strawberries is short but would offer smallholders realistic chances to move further down towards the end market consumer by: i) farmers packaging on-farm the field, ii) FOs transporting to local markets for sale to retailers, with branding; iii) FOs transport to the local markets and selling from rented or owned stands at markets. All of these modalities would benefit from branding. Pending feasibility calculations, larger scale investments would be supported for: i) packaging for the end market consumer; ii) cooling, iii) and cold storage, iv) marketing and sales points under label.

62. **Grapes**, both as table and dried grapes / raisins, are produces in the Project area. Fresh, i.e. table grapes are labour-intensive to pick and require high technology to sort mechanically. Transport is sensitive and risky. Cold chains are required. When sold, table grapes easily find easy buyers at farm-gate with little if any risk for the producers.

63. On the other hand dried grapes are traditional, low risk, easy to dry, and have a captive market, particularly for Ekşikara, a local single-seed variety. Currently many households produce for domestic consumption, or sale after storage, and as molasses as substitute of sugar.

64. Those selected for drying are laid in the sun for two to four weeks or kept in the warm shadows. After drying they are either loaded on a vibrating belt to separate stems, chaff and lightweight fruit, or cleaned manually, generally under poor hygienic conditions. Mycotoxins due to fungi are frequent due to unsuitable storage. The options for improved storage, solar drying, on-farm packaging or small cleaning and packaging line options would be examined as well as marketing and sales points under labels would be examined.

65. **Medicinal and Aromatic Plants (MAPs)** are generally collected from the wild and after primitive drying, sold in bulk in the markets. Component 1 would introduce MAPs into the income

generation spectrum of the poor upland households by promoting their on-farm propagation on small plots. The options for improved storage, solar drying, on-farm packaging or small cleaning and packaging line options would be examined as well as marketing and sales points under labels would be examined. A pre-cleaning line for would remove stalk and weeds, dust and stones and other physical external elements and the MAPs would be packaged in 50 kg sacks.

66. Konya as a province is among the largest in Turkey with food processing capacity, including for MAPs. The small producers of the project area could also benefit from the marketing channels of the province where wholesales are accustomed to local varieties. Furthermore, the support that would be given to the rural tourism investments would open up new channels for marketing of easy-to-carry locally branded products of relatively high value such as MAPs.

67. Provisions would be made for technology transfer such as on-farm packaging/labeling of strawberries, solar drying of MAPs and raisins and their regional marking. Technical or vocational training of existing labour force would be provided particularly the women and the youth, as well development of business planning skills. The SIP for MAPs would incorporate improved methods for natural resource management for those that are harvested from the wild.

68. All investment proposals would BP-driven and would be evaluated by the CPMU using criteria that would be detailed in the PIM. Each investment would also allow provisions for support to the management of the investment in terms of capacity building, training, and in the case of larger enterprises support for externally recruited management staff that would be paid on a descending bases over three years. The eligibility criteria would be established to distinguish between FOs and other SMEs.

69. Among the main reasons for the failure or poor performance of the post-harvest enterprises in the area has been identified by the mission as lack of ownership and incompetent and /or amateur management. The Project would ensure, through rigorous risk assessment at the proposal stage, the demand as well as the target markets for an investment. The BPs of for the MGP-supported investments would be evaluated by the CPMU based on both on the economic feasibility of the proposals and the management structures envisaged. In the case of FOs, the BPs would detail the responsibilities of the members and participatory decision-making mechanisms to ensure sound commercial management oversight In the case of SMEs , the ToRs of the management cadre would be presented along with the arrangements anticipated for their remuneration and the financial calculations that would attest to the sustainability of such mechanisms.

70. Management arrangements satisfactory to the CPMU and, depending on the size of the investment to IFAD, would be allowed to benefit from the MGP. The program would also allow provisions for a 3-year support to pay for the nucleus management cadres of the enterprises, that for the small scale anticipated, would consist of a manager and an accountant. The wages of these would be paid from the MGP on a descending basis of 100% in the first, 70% in the second, and 30% in the third year of operations. The payment would start with the year of investment when in-place management capacity is crucial and incomes low due to low capacity at start-up.

71. The differentiation of the support by MGP would be based on the typology of the investors that would incentivize and give bonus for collective action as similar to the Component 1.

72. Pending economic viability and with the exception of group (d) above, the employment generated by the investment would be evaluated with special consideration for local employment generation, with multipliers used for women and youth in the employee profiles that would be self-evident in the job descriptions of the anticipated positions and qualifications.

73. The cold chain, particularly for cherries, is dominated by the large cold storage (CSF) enterprises in Izmir, Bursa and Manisa where freshly harvested cherries are transhipped from the producers directly in refrigerated trucks. Investments in new cold storage facilities (CSF) are not anticipated due to the existing unutilized capacity that could be brought on stream. The diagnostic survey under Subcomponent 2.1 would identify the shortcoming of the existing CSFs in the project

area, some of which are owned by the public sector (such as ORKÖY of the MFAL) but operated by private lessees. The survey would provide guidance on the options and their costs for bringing these on-stream. The PPMU would disseminate information regarding the outcome of the survey among potential investors, with the support of the provincial Chambers of Commerce, and Industry and Trade. Given the cross cutting nature of the CSF, i.e. being independent of the priority VCs targeted, interested parties, such as FOs or SMEs would have access to the above described MGP facilities. Applicants would be subject to the same BP development and evaluation steps as the other investors.

74. Rural tourism in the project area has been identified in several government strategic documents including the KOP Master Plan as having potential for development through investments in simple accommodations and daily tours that originate in the high volume tourism along the Mediterranean coast resorts that are two hours over good roads. Studies conducted by the Governors Offices in Konya and Karaman also underline this potential. Both KOP and the MFWA have developed Tourism Master Plans for the area-at-large that focus on maintaining cultural heritage and *in-situ* protection of the natural resources through increased awareness among the local residents. Furthermore, rural tourism would present substantial opportunities of employment for the youth who would benefit from the vocational training that would be provided. The sector, particularly in accommodation and catering services, present income diversification opportunities for women.

75. The project would review the opportunities for tourism development by conducting a market study to identify potential at the district level where expert(s) would be contacted by the CPMU. The above-described process of developing BPs for VC investments would apply to candidate investors for rural tourism in the GTWDP area, or outsiders that have certifiably proven experience in rural tourism. The PPMU would be responsible to collect expressions of interest and subsequent BP-based applications that would be reviewed by the CPMU. The project has made financial provisions for rural tourism development in each province that would be used on the basis of a 30% beneficiary contribution. The investments in tourism would be expected reinforce the local and regional branding initiatives of the GTWDP.

76. **Implementation of the Component.** The CPMU would be responsible for the overall management of the component while the PPMUs in Konya and Karaman would be responsible for the day-to-day implementation in the field. As needed, the Project would contract additional team members to support the FSTs.

77. Under the PPMU and, seconded from the PDAs, the FST would be responsible to assist the PPMU in the daily interactions with the beneficiaries for all activities including but not limited to:

- Dissemination of information on the awareness raising, capacity building, and training programs and the identification of the beneficiaries that would participate in these programs,
- Under the guidance of the PPMU, the planning and coordination of the implementation of the activities that would be performed by the experts and/or service providers that would be contracted for food hygiene and safety, drying and sorting practices to reduce waste and improve quality, accounting, and marketing services, and,
- Assisting producers to make educated decisions in coordinate the links between farmers, processors, retailers and others and in production and marketing decisions related to the VCs.
- Informing all identified beneficiaries on the investment support opportunities and the Matching Grants Program (MGP) of the Project, including rehabilitation options for cold storage facilities (CSF) and opportunities in rural tourism.

78. The CPMU would be responsible for the procurement of a marketing advisory services (MAS) consultancy. The MAS would be nationally procured on the basis of a Quality and Cost-based tender according the Project procurement guidelines. Being among the largest F&V exporters in the world and with well-developed marketing network, the Project area would be deemed ripe for opportunities

for professional marketing companies in the F&V sector. The CPMU would initiate contacts with the Turkish Exporters Assembly to seek guidance regarding suitable candidates that would provide this service while also assisting to develop local capacity in the Project area. The Konya and Karaman Chambers of Trade are members of the SC that would also be involved in the process while also providing guidance regarding available capacity for twinning arrangement that the Project would seek to support.

79. The MAS would provide technical and knowledge support in all aspects of the component's implementation by providing systematic technical assistance to the CPMU and PPMU. The logistical and staffing arrangements of this service would be detailed in the contract of the MAS.

80. Among other tasks, the MAS would assist the CPMU, PPMU and the beneficiaries through the FSTs in providing guidance on the development and delivery of the awareness raising, capacity building, and training. The MAS would work closely with the PPMU in the development of the investment menus that would guide beneficiary decisions regarding the activities and investments supported with the MGP. The PPMU would also facilitate the access of the smallholders to on-going training programs conducted by the Ministry of Education through the Governors' Offices.

81. In first year of the project the CPMU would deliver, with the support the MAS, a gap analysis/study that would guide potential investors, ranging from individuals to groups and FOs, microenterprises and SMEs. This analysis would form the backbone of the extensive training and capacity building again through TA, with inputs from the MAS, to develop the commercial orientation and business notions and skills of the upstream, primary producers of all crops. The FSTs and selected staff of the PDAs would also participate to improve their own commercial notions. Particularly with the guidance of the MAS, a program of exposure visits open to all beneficiaries would be implemented by the PPMUs, under the overall guidance of the CPMU to ensure coordination between provinces.

82. A diagnostic survey and a capacity assessment would be conducted to cover all FOs in the project area. The results of the survey would be share with the shareholders and management of the FOs at consultative meetings. Following rigorous self –reassessment of the FOs, capacity development plans would be prepared with the assistance TA for those interested in improving their service delivery to members.

83. Service providers would carry out the capacity building either in villages or as larger groups at public facilities. All training would be fully inclusive and target the individual households, existing FOs, enterprises, and where relevant, PDA staff. Courses designed for women would concentrate on the MAPs and dried grapes VCs where opportunities reside for micro enterprises that could be operated by women.

84. The producers of the crops identified to receive special attention as part of the upstream VCs, i.e. cherries, strawberries, dried raisins and MAPS, would receive additional training on post-harvest handling in order minimize loss and reduce pesticide residue. The training would also cover sorting/grading, packaging and labeling according to market demand and legal regulations. The importance of food safety would be emphasized in all awareness and training programs' delivery.

85. The results of the baseline study would be used by the PPMU, through the FSTs, in initiating contacts to identify interest among potential investors in the enterprise investments for VCs' development. The PPMU would be responsible for information dissemination regarding the resources available under the project for individual, group or SME investments i.e. the MGP for enterprises. The PPMUs would inform the beneficiaries regarding availability and cost of Business Development Services in the project area. The PPMU would facilitate contact between providers of Business Development Services (BDS) that will be made available in the provincial centers. The BDS and FST would provide advice in business planning and investment to individual or groups of farmers to apply to use the resources of the matching grant program.



86. The PPMU would be responsible for developing the Strategic Investment Plans (SIPs) for each of the identified VC. TA would be provided through the CPMU on an as-needed basis. The Gender Specialist of the PPMU would ensure that a thorough gender analysis is conducted under each SIP. The SIPs would be shared with the target groups under each VC at meeting organized by the FSTs.

87. Once the SIPs are disseminated as above, the PPMU, with support from the MAS, would be responsible to accept and short list applicants that are interested in investing and accessing the MGP. The PPMU would contract locally available Business Development Services (BDS) that would assist the applicants in the preparation their SIP-related business plans (BPs). The PPMU would be responsible to ensure that the BDS give due attention to the inclusion of women and youth in the investments proposed in the BPs of the shortlisted beneficiaries.

88. The PPMU would be responsible to evaluate the BPs. The evaluation would be reviewed by the CPMU and depending on the thresholds established, either approve for MGP itself or send to IFAD for no objection. The Grant Manual would detail the terms of access to the MGP by the beneficiaries and its use for enterprise or on -farm investments.

89. The diagnostic survey carried out at start-up provides detailed information regarding the operational status and issues regarding the cold storage facilities (CSF) in the Project area. PPMU would disseminate information regarding the outcome of this survey to the provincial Chambers of Agriculture, Commerce, and Industry and Trade. Those interested in capturing the potentials for improvement by investing in the CSF would apply to the PPMU that would secure the technical support required for the interested investors to make BPs that would subsequently be evaluated along the same procedures described above for the SIP-based investments.

90. In the first year of the project, the CPMU would contract a reputable and experienced consultant that would analyze the potential for rural tourism in the project area. Once opportunities are identified the consultant would share the results with the interested residents of the Project area at a workshop. The FST would be responsible to arrange the logistics and information dissemination, in close cooperation with the PPMU.



## Appendix 5: Institutional aspects and implementation arrangements

### Project Management

1. **The Implementation management responsibility** of the GTWDP rests with one agency, the General Directorate Agrarian Reform (GDAR) of MFAL that would be fully responsible for all aspects of implementation of all components. The national counterpart of IFAD for the purposes of Project implementation would be GDAR. The GDAR carries out its functions in the field through the Provincial Directorates of MFAL (PDAs) located in each of the country's provinces. The District Directorates of the MFAL operate under each PDA in numbers that correspond to the districts in each province. For the GTWDP, the PDAs of Konya and Karaman would be responsible for the field implementation of the project. There are 7 districts in Konya and 4 districts in Karaman where the DDAs would participate in the field implementation.

2. **A Central Project Management Unit (CPMU)** would be established within GDAR in Ankara to support implementation of the Project comprising a Project Manager, a Central Focal Point (CFP), a secretary/translator and five technical staff members. The Deputy General Director of GDAR responsible for Rural Development would be appointed by MFAL to undertake duties as Project Manager (PM). The head of the Foreign Funded Projects Section would be the CFP and would assist the PM in day-to-day affairs of the CPMU and in all matters relating to field operations. The CPMU staff members are seconded from GDAR and will in average use approximately 20% of their time on GTWDP-related work. The CPMU's primary functions are: (i) to provide broad based project management support to GDAR in including planning, programming, budgeting, monitoring and documenting progress; (ii) translating experiences and lessons learned from implementation through the SC to the policy level at MFAL; and (iii) to report to the relevant levels at the Ministerial level and IFAD. The CPMU will take the lead in the procurement of all civil works, goods and services, and technical assistance that relate to the field activities. The CPMU would take the lead in the procurement of all civil works, goods and services, and technical assistance that relate to the field activities. An economist to support the Procurement and Finance Specialists could be recruited should conditions require such. Table 10 shows the CPMU staff and recruitment modalities.

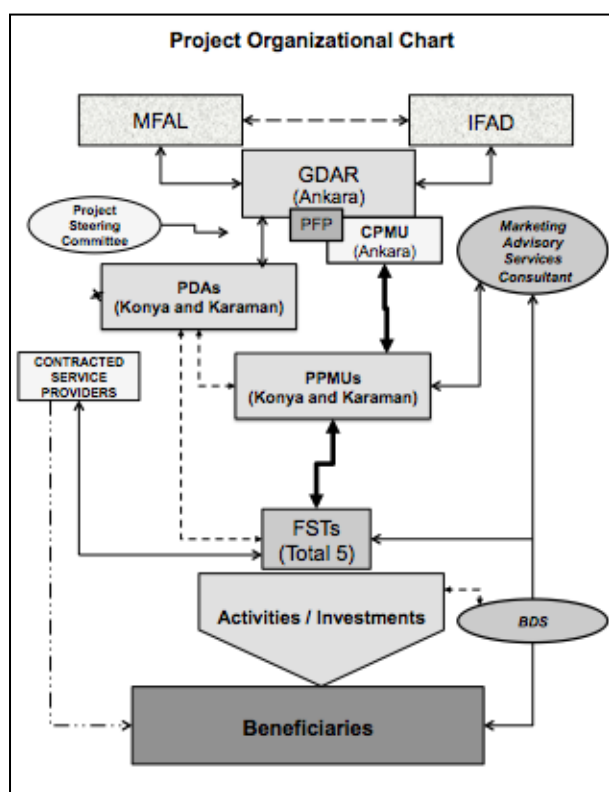
3. A part-time and Private Sector and Rural Development Coordinator would be employed in the Project Management Unit. All the financing needs related to the forum itself, including the Coordinator's salary, will be covered by the project.

**Table 10: Composition of Central Project Management Unit (CPMU) in Ankara**

Position in Project	Position in GDAR	Type of recruitment
Project Manager (PM)	Deputy General Director	Seconded
Central Focal Point (CFP)	Section Head Foreign Funded Projects	Seconded
Technical Staff	GDAR	Seconded
<ul style="list-style-type: none"> <li>• Senior Rural Development Specialist</li> <li>• Procurement Specialist</li> <li>• M&amp;E Specialist</li> <li>• Procurement Officer</li> <li>• Finance Specialist</li> <li>• Private Sector &amp; Rural Dev. Coordinator (Part time)</li> </ul>	technical and administrative staff	
(TBD) Economist (in support of procurement and FM)		
Secretary / Translator	-	Contracted

4. The implementation of activities in the provinces is decentralized to the PDAs in Konya and Karaman. Two Provincial Project Management Units (PPMUs) housed in the Konya and Karaman PDAs would oversee day-to-day implementation under the direction of the Field Implementation Managers (FIMs) in the respective provinces in line with decentralized implementation of GTWDP's activities. Staff seconded from the PDAs would be employed in the PPMUs. The PPMUs would be headed by Provincial Project Managers that would be seconded from within the ranks of PDA senior staff on the basis of MFAL/GDAR directives in line with the ToRs for the PM/CPMU and PPM/PPMU are provided as Annex 1 to this Appendix.
5. The principal functions of the PPMUs are: (i) to provide management support to the implementation at field level through the 11 DDAs in the in the project area (7 districts in in Konya and 4 in Karaman); (ii) to coordinate planning and reporting between the field and The CPMU in Ankara; and (iii) to handle day-to-day management and implementation of the Project.
6. Five **Farmer Support Teams (FSTs)**, each comprising one each field crop agronomist, horticulturist and agricultural economist, would be assigned by the PDA to carry out extension services and maintain frequent contact with the beneficiaries as required by the GTWDP design. The PDAs have cadres of multi-disciplinary extension staff that are based in the DDAs and residing mainly in the district centres. The FSTs would work closely with the communities in the selected districts; all villages in a district are included. The planning of project interventions and investments would be menu-driven. The menus would be developed by the PPMU based on parameters derived from the PIM and with due consideration of the agro-ecologic specificities of each district that determine the crop pattern. The planning will be bottom up.
7. The GDAR would prepare the Project Implementation Manual (PIM), with technical assistance as needed. Both MFAL and GRAR have extensive experience in preparing, implementing and monitoring of IFAD and international donor-funded projects that would be drawn upon in preparing the PIM. The proposed Organizational Chart is presented in Figure 2.

**Figure 2: Project Organizational Chart**



## 8. Implementation of Component 1: Agricultural Productivity and Natural Resource

**Management.** The PDAs in Konya and Karaman, through their PPMUs, would be responsible for the management of the Component. The PPMU would prepare the work plans for the FSTs based on seasonal requirements and logistical constraints, if any. Each FST would be allocated a rented vehicle on a full time basis to ensure maximum mobility and flexibility in their interactions with the beneficiaries. The staff of the DDAs would complement the FSTs tasks as necessary, specifically in case of need of specific expertise not available in the team. The FSTs would initiate and sustain regular contact with the beneficiaries on behalf of the PPMU.

9. The 'hardware' requirements of the Component such as procurement or renting of vehicles, equipment and materials, and agricultural inputs would be carried out and distributed by each PPMU based on the recommendations of the CPMU and according to the guidelines in the PIM. The two PPMUs would collaborate on their respective activity thrusts to ensure coordination in the implementation of the AWPBs that are project –level. Procurement thresholds would be established in the Loan Agreement and reflected into the PIM.

10. The CPMU would carry out, with the assistance of TA as needed, a TNA for the project area as a whole. Under the overall leadership and monitoring of the CPMU, the PPMUs would develop training programs and study tours and exchange visits, and ii) developing and implementing training programs on natural resource management tailored for identified target groups including but not limited to government staff, farmers, women and children.

11. The PPMUs would coordinate with the Konya Regional Forestry Directorate to establish synergies to best utilize the terraces that are being constructed under the seven micro-catchment based projects in the project area. The FST that are in close contact with the villagers would ensure that GTWDP –supported investments in improving productivity dovetail with the new areas that are opened for agriculture by terracing on private lands.

12. Under Sub-component 1.1 Improved Agricultural Productivity and Quality, the FSTs, under the overall guidance of the PPMU, would be primarily responsible for the provision of all advisory services including but not limited to: i) conducting farmer training needs assessments, i) ii) setting up on-farm demonstrations, iii) daily planning, implementation and dissemination of information, iv) providing inputs to the M&E system (including photos, video films, and v) conveying the issues expressed by the farmers to PPMUs that exceeds the team's capacity to resolve. .In each village, at least two persons would be identified by the resident community to act as "contact persons", one being a woman, to coordinate with the FST and make necessary arrangements to allow the FST use their time in the village efficiently. The project area is well served by mobile telecommunications and good road infrastructure and regular communication to ensure timely interaction is not a constraint in planning.

13. The FSTs would work closely with the DDAs and the farmers in the selection of locations for the Early Warning Systems (EWS) that would be decided and procured by the CPMU to ensure the system fits the MIS of MFAL. The identification of beneficiaries that are interested to invest in piloting of the electrified fence to protect crops from boar. The FST would assist the farmers in their decisions given the high cost of the fencing and inform them regarding any risks. The procurement of the EWS would be by the CPMU.

14. Under Sub-component 1.2 Natural Resource Management, with TA assistance, the PPMU would have overall responsibility for sensitizing all stakeholders as regards natural resource management. The FSTs would gather information on the needs and demands of villagers for i) the small ponds, ii) agricultural terraces, iii) improvements to the rangelands such as livestock drinking water facilities, shade, shepherd shelters, portable, iv) solar energy units for the temporary dwellers in the summer pasture, and iv) access roads to the pastures. The FSTs would also be responsible for assessing the demand for solar-powered irrigation pumps and the organizational structures such as a cooperative that would undertake such investments. The FSTs would coordinate closely with the District Forestry Offices in their respective areas to collaborate on the Integrated MC Rehabilitation

Projects and identify the needs for support and synergy by the GTWDP. The collected information would be analyzed, reviewed for feasibility and collated by the PPMU to be sent to the CPMU for approval to invest. Such approvals would be contingent on the PPMUs, and consequently the investing party's satisfactory arrangements regarding the operations and maintenance (O&M) of facilities, specifically in the case of groundwater pumps. The CPMU would undertake competitive tendering of all civil works as design-and-build packages that would be optimize cost, timing of delivery in view of the seasonal constraints and ensure best quality for the money (QCB). The PPMU would be responsible for contract supervision of the civil works with support from CPMU as needed. Procurement thresholds would be established in the Loan Agreement and reflected into the PIM. AWPB(s).

15. The ToRs and procurement guidelines for these activities will be detailed in the PIM.

16. **Implementation of Component 2: Market Access Enhancement.** The CPMU would be responsible for the overall management of the component while the PPMUs in Konya and Karaman would be responsible for the day-to-day implementation in the field. As needed, the Project would contract additional team members to support the FSTs.

17. Under the PPMU and, seconded from the PDAs, the FST would be responsible to assist the PPMU in the daily interactions with the beneficiaries for all activities including but not limited to:

- Dissemination of information on the awareness raising, capacity building, and training programs and the identification of the beneficiaries that would participate in these programs,
- Under the guidance of the PPMU, the planning and coordination of the implementation of the activities that would be performed by the experts and/or service providers that would be contracted for food hygiene and safety, drying and sorting practices to reduce waste and improve quality, accounting, and marketing services, and,
- Assisting producers to make educated decisions in coordinate the links between farmers, processors, retailers and others and in production and marketing decisions related to the VCs.
- Informing all identified beneficiaries on the investment support opportunities and the Matching Grants Program (MGP) of the Project, including rehabilitation options for cold storage facilities (CSF) and opportunities in rural tourism.

18. The CPMU would be responsible for the procurement of the envisaged marketing advisory services (MAS) consultancy. The MAS would be nationally procured on the basis of a Quality and Cost-based tender according the Project procurement guidelines.

19. The MAS would provide technical and knowledge support in all aspects of the component's implementation by providing day-to-day assistance to the CPMU and PPMU. The logistical and staffing arrangements of this service would be detailed in the contract of the MAS.

20. Among other tasks, the MAS would assist the CPMU, PPMU and the beneficiaries through the FSTs in providing guidance on the development and delivery of the awareness raising, capacity building, and training. The MAS would work closely with the PPMU in the development of the investment menus that would guide beneficiary decisions regarding the activities and investments supported with the MGP. The PPMU would also facilitate the access of the smallholders to on-going training programs conducted by the Ministry of Education through the Governors' Offices

21. In first year of the project the CPMU would deliver, with the support the MAS, a gap analysis/study that would guide potential investors, ranging from individuals to groups and FOs, microenterprises and SMEs. This analysis would form the backbone of the extensive training and capacity building again through TA, with inputs from the MAS, to develop the commercial orientation and business notions and skills of the upstream, primary producers of all crops. The FSTs and selected staff of the PDAs would also participate to improve their own commercial notions. Particularly with the guidance of the MAS, a program of exposure visits open to all beneficiaries would be

implemented by the PPMUs, under the overall guidance of the CPMU to ensure coordination between provinces.

22. A **Diagnostic Survey** and a capacity assessment would be conducted to cover all FOs in the project area. The results of the survey would be share with the shareholders and management of the FOs at consultative meetings. Following rigorous self –reassessment of the FOs, capacity development plans would be prepared with the assistance TA for those interested in improving their service delivery to members. The FOs that successfully complete the transformation to

23. Service providers would carry out the capacity building either in villages or as larger groups at public facilities. All training would be fully inclusive and target the individual households, existing FOs, enterprises, and where relevant, PDA staff. Courses designed for women would concentrate on the MAPs and dried grapes VCs where opportunities reside for micro enterprises that could be operated by women.

24. The producers of the crops identified to receive special attention as part of the upstream VCs, i.e. cherries, strawberries, dried raisins and MAPS, would receive additional training on post-harvest handling in order minimize loss and reduce pesticide residue. The training would also cover sorting/grading, packaging and labeling according to market demand and legal regulations. The importance of food safety would be emphasized in all awareness and training programs' delivery.

25. The results of the **Baseline Study** would be used by the PPMU, through the FSTs, in initiating contacts to identify interest among potential investors in the enterprise investments for VCs' development. The PPMU would be responsible for information dissemination regarding the resources available under the project for individual, group or SME investments i.e. the MGP for enterprises. The PPMUs would inform the beneficiaries regarding availability and cost of Business Development Services in the project area. The PPMU would facilitate contact between providers of Business Development Services (BDS) that will be made available in the provincial centres. The BDS and FST would provide advice in business planning and investment to individual or groups of farmers to apply to use the resources of the matching grant program.

26. The PPMU would be responsible for developing the Strategic Investment Plans (SIPs) for each of the identified VC. TA would be provided through the CPMU on a need basis. The Gender Specialist of the PPMU would ensure that a thorough gender analysis is conducted under each SIP. The SIPs would be shared with the target groups under each VC at a meeting organized by the FSTs.

27. Once the SIPs are disseminated as above, the PPMU, with support from the MAS, would be responsible to accept and short list applicants that are interested in investing and accessing the MGP. The PPMU would contract locally available Business Development Services (BDS) that would assist the applicants in the preparation their SIP-related business plans (BPs). The PPMU would be responsible to ensure that the BDS give due attention to the inclusion of women and youth in the investments proposed in the BPs of the shortlisted beneficiaries.

28. The PPMU would be responsible to evaluate the BPs. The evaluation would be reviewed by the CPMU and depending on the thresholds established, either approve for MGP itself or send to IFAD for no objection. The Grant Manual would detail the terms of access to the MGP by the beneficiaries and its use for enterprise or on -farm investments. The diagnostic survey carried out at start-up provides detailed information regarding the operational status and issues regarding the cold storage facilities (CSF) in the Project area. PPMU would disseminate information regarding the outcome of this survey to the provincial Chambers of Agriculture, Commerce, and Industry and Trade. Those interested in capturing the potentials for improvement by investing in the CSF would apply to the PPMU that would secure the technical support required for the interested investors to make BPs that would subsequently be evaluated along the same procedures described above for the SIP-based investments.

29. In the first year of the project, the CPMU would contract a reputable and experienced consultant that would analyse the potential for rural tourism in the project area. Once opportunities are

identified the consultant would share the results with the interested residents of the Project area at a workshop. The FST would be responsible to arrange the logistics and information dissemination, in close cooperation with the PPMU.

30. **Governance.** GTWDP activities would be implemented by the PDAs of MFAL, contracted suppliers and service providers, and upland village communities. All financial and material transactions of the Project would be subject to Turkey's robust governance framework and comply with IFAD's exacting requirements of transparency and rectitude. In accordance with Article 3(c) of the PPL, government offices, provincial and municipal administrations have internal audit units and are also subject to external audits by the Inspection bodies and Supreme Accountancy of the GOT under the Turkish Court of Accounts (TCA).<sup>60</sup>

31. Good governance measures built into the Project would include (a) undertaking all necessary measures to create and sustain a corruption-free environment for activities under the Project; (b) instituting, maintaining and ensuring compliance with internal procedures and controls for activities under the Project, following international best practice standards for the purpose of preventing corruption, and shall require all relevant ministries, agents and contractors to refrain from engaging in any such activities; (c) complying with the requirements of IFAD's Policy on Preventing Fraud and Corruption in its Activities and Operations; and (d) ensuring that the Good Governance Framework, (to be provided at final design), is implemented in a timely manner.

32. Government shall ensure that: i) it is engaged actively in allowing potential Project beneficiaries and other stakeholders to channel and address any complaints they may have on the implementation of the Project; and ii) after conducting necessary investigations, the Government shall report immediately to IFAD any malfeasance or maladministration that has occurred under the Project.

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<sup>60</sup> The Turkish Court of Accounts (TCA) is responsible for external audit. The legal framework governing its operations is based essentially on Law 832 on the Court of Accounts, enacted in 1967 (as amended). Law 5018 on Public Financial Management and Control (PFMC), in force since December 2005 (as amended), also governs some of the TCA's general responsibilities.



## Annex 1. Terms of Reference of Key Project Staff (DRAFT)

### Project Manager (PM)

#### GTWDP Central Project Management Unit (CPMU)

1. **Duration of Assignment:** Open ended. The individual would be the Deputy Department Head of the Irrigation and Reclamation Department of the General Directorate of Agrarian Reform (GDAR), assigned based on secondment from the MFAL. The option to contract an externally recruited PM would be reviewed should the need arise due to extraordinary circumstances.
2. **Duty Station:** Based in Ankara, with regular travel to the Project area (Konya and Karaman) as required for co-ordination, monitoring, and oversight.

#### Qualifications and Experience

3. A higher degree in Agricultural Economics, Business Administration, Agriculture and sub-branches including Irrigation, Agricultural Machinery, Public Administration or related **discipline** relevant to the GTWDP with sound knowledge of contemporary issues in the rural economy of Turkey, agriculture, natural resource management and rural development. A minimum of five years at a senior technical or management level in a relevant public institution, private sector or an international organization, with proven skills in the management and co-ordination of internationally financed development programmes.
4. The individual would be expected to have a creative, energetic and pragmatic approach to problem solving and an appreciation of the respective roles of the public and private sectors in rural economic development and agricultural production and project management. Computer literacy would be requisite.

#### Job Description

5. The Project Manager will report to the General Director of GDAR as the immediate supervisor in Ankara and would be responsible to:
  - Provide support to Provincial Project Managers in Konya and Karaman ;
  - Provide guidance to the PDAs in Konya and Karman for project related activities specifically for all matters pertaining to the smooth implementation of the Project, in accordance with procedures and obligations specified in the IFAD Financing Agreement and implementation arrangements detailed in the Project Operations Manual;
  - Act as secretary for the Project Steering Committee (SC) and arrange for dissemination of the decisions taken and follow-up;
  - Oversee the activities of Project staff, consultants, and consulting service providers (Marketing Advisory Services, Business Development Services), service providers for special studies and surveys, and similar, in accordance with the conditions of the IFAD Loan Agreement; the related Terms of Reference; and the requirements of Annual Work Programmes and Budgets (AWPBs);
  - Provide guidance to the Central Focal Point (CFP);
  - Oversee the preparation of the SIPs;
  - Ensure timely review and approval of the Business Plans of beneficiaries that would use the Matching Grant Program and obtaining IFAD no objection as relevant and approval and required budget allocation;

- In close collaboration with the PPMUs in Konya and Karaman oversee the preparation of the Annual Work Plan and Budget (AWPB) in relation to the Project design and available financing, and oversee the implementation of the activities as per the approved AWPB;
- Oversee the preparation, introduction and utilisation of a Results-oriented Management Information System for the Project, and ensure timely collection, analysis and utilisation of monitoring information;
- In addition to the internal documentation (including technical reports, financial documentation and accounts, and procurement requests) prepared at the provincial level, oversee the submission of other internal documentation (payments, background documents, financial reports, replenishment requests) as per the requirements of GDAR in Ankara, and/or IFAD as appropriate and in accordance with the Loan Agreement and the arrangements specified in the Operations Manual;
- Ensure implementation of the participatory, iterative, multi-faceted approaches of the Project that are crucial to maintaining its focus on poverty reduction and improving the quality and quantity of products sold to markets; and
- Receive and review reports, studies and other Project documentation from consultants as appropriate for action by the CPMU and PPMU teams

With specific reference to administration and financial management of GTWDP funding:

- Ensure the completion of the procurement process and full compliance with IFAD procurement guidelines;
- Coordinate the contract administration of the specialists hired for PPMUs and assess their performance on a regular basis;
- Oversee the preparation and submission of a detailed expenditure report on quarterly advance payments by the financial specialist of the CPMU; and
- Ensure timely endorsement of Withdrawal Applications and submit them to IFAD and Treasury.

## **Provincial Farmer Support Teams (FSTs)** **Draft Terms of Reference** (to be detailed in PIM)

**Duration of Assignment:** Open ended. The FST would comprise MFAL staff seconded from the PDAs in the Project provinces.

**Duty Station:** Five teams would be in place, based as two in Konya and three in Karaman. The distances between the province centre and the districts that the FSTs would be operating from allow flexibility for a base station that may vary according to their work plans. The operational bases of the FST would be determined by the Provincial Project Coordination Units (PPMU) with guidance from the CPMU on the basis of the AWPBs and their respective monthly programs prepared by the PPMUs. The FSTw would update their field programs and provide reports on their activities through regular visits to the PDAs and DDAs in their command area as required for reporting and coordination among each other. Each team would be assigned a group of villages.

### **Composition of the Team**

1. Each team will comprise an agronomist (with capacity in the fields of land and water management). The FST would be supplemented with expert staff of the Marketing Advisory Services contactor and externally recruited specialists, on an as needed basis, according to their work programs. One member of the FST would be female to better interact with the women farmers and other female beneficiaries of the Project.

### **Qualifications and Experience**

2. Every member will be expected to have as a minimum a Bachelor's degree in his or her relevant field(s). The Team Leader and will be expected to have 5-10 year certified field experience. Government or private sector experience in rural development (participation/gender issues) and agricultural/horticultural production would be the prime consideration in their secondment. Computer literacy would be sought.

3. The FST members would be expected to have at least 5 years of certified experience in their respective fields, and capable of adopting creative but pragmatic approaches to problem-solving and an appreciation of the participatory approaches in rural development and livelihood improvement. Computer literacy will be sought.

### **Job Description**

4. Each team will provide field implementation support to PPMUs according to the detailed tasks outlined in the PIM. They will work closely with the Village Focal Points that would be identified during as soon as the practicable after the Project's start-up. The FSTs would inform the *mukhtars* of the villages on all aspects of their activities.

5. Each Team Leader will ensure that the Project is implemented in their respective group of villages in accordance with the design and agreement with Turkish Government (MFAL/GDAR) and IFAD; and provide guidance to the rest of the team in interacting with the PPMU and the Project area communities while maintaining responsibility for collection of relevant data and information to be used as input to the Project M&E System. Such information would also be used in the TARBIL M&E system of the MFAL.

6. In their respective group of villages, each team will coordinate, arrange venues and inform the beneficiaries on the awareness-raising, capacity building and training programs that would be designed based on the surveys and assessments completed soon after start-up. They would work closely with the service provider(s) that would deliver the program or deliver themselves as appropriate, based on the envisaged topics. They would also develop the village visit plans, arrange venues through the village administrations, and ensure the participation of women and the elderly.

7. Each team would assist the Marketing Advisory Services (MAS) provider with technical and/or logistical support in conducting their services along approaches outlined in the PIM.

8. Each team will develop visit and demonstration plans for each village based on the agreed awareness-raising, capacity building and training program for efficient and effective implementation of Components 1 and 2.

9. Each team is responsible for implementing the Project activities included in the PIM through multi-sectoral, client-focused, coordinated, demand-driven and participatory advisory services. Within this framework each team is expected to maintain a "Village Logbook" in electronic format that contains information derived from the below :

- Conduct a situation analysis in each of the villages in their area of assignment:
  - altitude, length of growing period, annual precipitation and distribution, no. of days of snow cover, soil depth, texture, land capability class;
  - production patterns: agronomic practices and related calendar in crop production, livestock husbandry practices, yields, total production;
  - if relevant, marketing opportunities and channels;
  - farmers' resources: Total land/hh, no. of plots/hh, type of livestock owned, no. of livestock/household, mechanization;
  - natural resources : available water, forest, rangelands and their traditional uses by the community or outsiders (nomadic livestock production); and
  - availability of household labour, seasonal migration patterns;
- identify yield limiting factors (environmental factors, input availability and provision, required knowledge and skills etc.) jointly with the farmers;
- identify marketing problems jointly with the community in village meetings;
- identify production practices, including irrigation, causing with the community
- to address problems, provide and facilitate advice, build partnerships with other government agencies active in their command area, namely the local directorates of the OGM for the on-going and planned micro-catchment bases activities, as well as other relevant government agencies, local input dealers, private sector, farmer organizations, whole sale and retail markets (inputs and outputs)
- assist to identify farmers' evolving training needs;
- provide and facilitate training programs (formal, informal and hands-on) for women and youth systematically throughout Project implementation and not just on a "demand driven basis";
- design, carry out and facilitate to be carried out all on-farm demonstration programs and follow-up on-farm advice;
- assist to implement the series of farmer exposure visits under the guidance of PPMU and follow-up dissemination of information; and
- provide technical and business information on new business opportunities and diversification alternatives to raise incomes and broaden the rural economic base, if relevant.

10. The Team will assist the PPMU in compiling data for monitoring. Such data will be sent to the Provincial Project manager at the PPMUs in Konya and Karaman, as relevant, for evaluation and dissemination.

11. The Team will be responsible also for organizing the delivery and distribution of the various inputs to the beneficiaries and monitor their use to ensure the planned outputs of the component.

12. The nature and scope of the FSTs role may be expected to change in terms of detail as the Project evolves and new/adjusted functions become necessary following 18-month and Mid-term Reviews.



## Appendix 6: Planning, M&E and learning and knowledge management

- 1. Monitoring.** The monitoring and evaluation (M&E) function will be integrated in the management system, and be guided by the Project's logical framework. Information from a variety of sources will form the basis for an integrated management information system (MIS) that focuses on continued analysis of, rather than generation of, information. The Logical Framework (LF) indicators combined with a selection of indicators from the MCPs form the basis of the monitoring system. To the extent possible, the M&E system will be linked to the national system, TARBIL, which has been established at the level of the Ministry of Food and Agriculture. The TARBIL system is fully integrated with the Farmer Registry System and with the Land Parcel Identification System. It entails about 500 million data entries related to climate, soil type, topography, yields, cropping patterns, etc.
- 2.** The mainstreaming of the project's management into the operations of MFAL/GDAR through PMUs (CPMU and PPMUs) that comprise predominantly seconded staff would further enhance M&E capacity and render it more participatory, in terms of both process and impact on planning for future operations. Data collected for the purposes of the project would further enrich the TARBIL information base. The outputs would be disseminated in project communities thus i) providing guidance to the farmers in production and marketing decisions, and, ii) facilitating more participation from the community in reviewing assumptions for implementation outcome. This would improve targeting accuracy of planning the interventions for Phase 2 of the envisaged programme as direct inputs from a common M&E database.
- 3.** The M&E system comprises both performance and impact monitoring. All M&E data will be disaggregated by gender and by age. The generally RIMS-based Logical Framework indicators combined with a selection of indicators derived from the TARBIL System will form the basis of the monitoring system. During the start-up workshops, one in Ankara and one each in the Field Project Coordination Units in Karaman and Konya provinces, further recommendations will be made on specific indicators and means of verification (MoVs). An early task of the M&E Officer will be to establish a Monitoring Plan including a matrix to identify data sources and periodicity of reporting for the agreed indicators. The PIM would provide guidance to project management regarding the Monitoring Plan as well as an output correlation table with RIMs and TARBIL indicators.
- 4. RIMS.** Project's performance monitoring will focus on financial and physical outputs and outcomes of Project activities. Performance indicators, detailed in the LF will be monitored annually for outcomes and quarterly for outputs and include IFAD Results and Impact Management System (RIMS) 1st and 2nd level indicators. The RIMS first-level indicators correspond to the project outputs with quantitative indicators planned and implemented on annual basis. The second-level indicators refer to the project outcomes and will measure the qualitative change resulting from the project in terms of effectiveness and sustainability. The third level results correspond to the project impact. For the RIMS, two anchor indicators are identified for assessing the impact of the Project: household asset ownership and child malnutrition. Given that Turkey is a MICS country, the Baseline Survey will be used to determine whether the child malnutrition indicator is relevant for the project area or can be dropped and replaced by another indicator such as food security level.
- 5.** A list of indicators for the 1<sup>st</sup> level (outputs) and 2<sup>nd</sup> level (outcomes), including the RIMS indicators are given in the table below.

**Table 11: List of 1<sup>st</sup> level and 2<sup>nd</sup> Level Indicators**

<p><b>Outcome 1: Farm productivity sustainably increased</b></p>	<ul style="list-style-type: none"> <li>• 8,000 small producers in targeted areas report improved productivity by 20% of (gender disag.)</li> <li>• 1000 ha in targeted areas receive improved productive infrastructure (RIMS)</li> </ul>
<p><b>Output 1.1</b> Means of improvement of agricultural productivity implemented</p>	<ul style="list-style-type: none"> <li>• 60,000 of men and women trained in improved agricultural practices and technologies (RIMS level 1)</li> <li>• 7,000 ha in targeted areas under modern production techniques (including production under cover (ha)</li> <li>• 2,000 hhs in targeted areas adopting water conservation techniques (drip, sprinkler, ponds) (#, %)</li> <li>• 1,100 ha in targeted areas irrigated with water efficient methods</li> </ul>
<p><b>Outcome 2: Smallholder producers receive higher product prices</b></p>	<ul style="list-style-type: none"> <li>• Farm gate prices for the selected value chains increase by 20%</li> </ul>
<p><b>Output 2.2</b> Improved value chain processes are functioning</p>	<ul style="list-style-type: none"> <li>• 10,000 men and women trained in technical production, marketing and quality standards (#) (RIMS)</li> <li>• Producers accessing support from complimentary Government programs (#)</li> <li>• 10 existing FOs re-activated (RIMS)</li> <li>• 30% FO membership comprise women</li> <li>• 20 business plans prepared and approved for financing</li> </ul>
<p><b>Output 2.2</b> Investments in value chains investments are operating</p>	<ul style="list-style-type: none"> <li>• 10,000 men and women trained in business and entrepreneurship (RIMS)</li> <li>• 4 processing facilities rehabilitated/constructed (cold storage, processing, etc.) (RIMS)</li> <li>• 20 newly established businesses operating profitably (FOs &amp; SMEs, including rural tourism) (gender disag.)</li> <li>• 10 products branded or registered with geographic markers</li> <li>• 200 fully registered jobs generated for men and women at commercial FOs &amp; SMEs</li> <li>• 6 Strategic Investment Plans (SIPs) developed</li> </ul>
<p><b>Outcome 3: Sustainable increase of soil water moisture</b></p>	<ul style="list-style-type: none"> <li>• Smallholders report 25% increase of soil moisture.</li> </ul>
<p><b>Output 3.1: Climate - resilient NRM practices adopted</b></p>	<ul style="list-style-type: none"> <li>• 30,000 men and women trained in NRM (RIMS)</li> <li>• 3,250 ha of marginal lands in production with conservation measures such as terraces (ha) (RIMS)</li> <li>• 5,000 men and women farmers utilizing renewable energy sources (#)</li> <li>• 10,000 ha of rangelands in targeted areas used based on grazing plans (#) or 80% (RIMS)</li> <li>•</li> </ul>
<p><b>Outreach</b></p>	<ul style="list-style-type: none"> <li>• 32,000 households receiving project services</li> <li>• 120 nomadic Yörük families in the highlands of the Project area receiving project services</li> </ul>



6. The project has adopted a value chain approach and the M&E system will be designed to measure the changes within value chains that are supported. Output parameters such as yields, production costs are already available in the TARBIL system.

7. The following indicators will be measured:

- Production costs: Change in the production costs in the value chain for traditional and new crops;
- Yields per unit: evolution of the yields or productivity per unit in the chain(s) supported. For example, production per ha of cherry trees.
- Value of final product: evolution of the commercial value in constant currency of the final products.
- Profitability: evolution of the product gross or net profit for the chain and which actors captured the greater percentage of the benefits within the chain.
- Contract Farming: percentage of production marketed through contract farming
- Sales volumes: increase in total volume of sales measured in tons
- Sales value: value of the sales measured in constant currency.
- Employment created: number of jobs created in each value chain.

8. **Baseline Survey.** The LF indicators combined with a relevant selection of RIMs indicators as well as indicators to be derived from the Project Start-up Workshop will form the basis of a Baseline Survey to be conducted in the first year of implementation. The Survey will be designed to capture the present situation in the Project area 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 Project 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. The Survey will also compare the socio-economic situation of beneficiaries and non-beneficiaries. The survey will determine the situation of reference (baseline) that will be used to measure the project impact on poverty, livelihood and nutrition of direct and indirect beneficiaries at the time of project completion. Poverty characteristics will be assessed based on proxy indicators such as household assets and expenditure. Nutritional characteristics will be assessed using the dietary diversity and child malnutrition indicators. Based on the results of the Survey, it will be decided whether the child malnutrition indicator is relevant for the project area or can be dropped for the impact survey and replaced by another indicator such as food security level. The LF indicators will serve as a basis for the assessment by project component. A sample of a standard TOR for a RIMS Baseline Survey is given in Annex 1.

9. **Mid-term Review (MTR):** An MTR will be conducted in year 3 to check whether the project is going on track regarding achieving its goal and objectives and the need for modifications to project design. The Government and IFAD will carry out the MTR jointly. It will examine the implementation approach, effectiveness and progress of the various components, and the effectiveness of the project implementers in delivering project services, the coordination, planning and budgeting procedures and the flow of funds' management. On the basis of the findings, conclusions and recommendations of the MTR, necessary adjustments will be made in the Project Design and the Financing Agreement to remove constraints and achieve the Project objectives. During MTR, the LF will be also revised and adjusted based on the changes introduced in the project strategy and the targets for the indicators may also be revised accordingly.

10. **Project Completion Report (PCR):** In the last year of implementation, the project would prepare a self-assessment of its performance that will feed into the completion report. It will be done through a systematic examination and interpretation of data collected during project implementation and would summarize all project results and examine project impact in term of achieving the objectives as set in the LF. The project M&E system will be the main source of information for the PCR. The project would take stock of available information at the beginning of the last year of

implementation, and as necessary, take measures to fill gaps and supplement data. For the preparation of PCRs, the PMU will undertake special studies and an impact assessment that will be implemented with the assistance of an external company. A significant role in assessing the results of the project and its impact will be played by the beneficiaries of particular project through the evaluation workshops, field visits, interviews and similar participatory methods. For the preparation of PCR, IFAD and the PMU will agree on specific surveys and maintain stakeholder discussions to better capture different views and opinions about project implementation and its performances and integrate wider range of benefits in the completion report.

11. **Impact Assessment.** An impact assessment survey will be undertaken upon project completion, before the project's closing. The survey will use the baseline and any other impact surveys done during the project life cycle (for e.g. during project midterm) as the basis. It will assess the project impact using the same indicators (RIMs and project specific derived from the Log Frame) as the baseline survey. The key elements of the Survey will include: (i) socio-economic characteristics of the Project primary target group; and (ii) status of social and economic infrastructure. The Survey will be aim to measure the changes brought about by the project in the socio-economic development of its beneficiaries. It is anticipated that the Survey will combine a formal household sample survey with a more qualitative and in-depth study. The Survey will also compare the socio-economic situation of beneficiaries and non-beneficiaries in order to better attribute the impact to the project. Detailed analysis will be undertaken of the changes observed between baseline survey and the impact survey. Where possible, panel data will be used i.e. some of the beneficiaries interviewed during the baseline survey will also be included in the sample of the impact survey.

12. It is also foreseen that an impact survey to measure the project outcomes will be taken before the midterm review of the project. This could be a smaller survey with the focus on outcomes alone (RIMS second level and Log Frame outcomes).

13. **Staffing.** The Project Manager will be responsible for ensuring that a responsive M&E system is established and regular monitoring and progress reporting is in place for Project activities. A dedicated M&E Officer to be recruited at the PMU and the two PPMUs will have day-to-day responsibility for collecting and analyzing data and preparing, as required but at minimum quarterly reports, on progress and results achieved and implementation issues arising from monitoring activities. These reports will be directed at Project management, but may be shared with the Project Steering Committee.

14. **Knowledge Management.** Continuous lessons learning and KM are an integral part of the GTWDP and would be fully mainstreamed into its implementation. As a starting point, lessons learned have been highlighted from: (a) nine past and on-going IFAD-funded projects in Turkey, and the respective value chain, irrigation and other local development interventions; (b) detailed GTWDP design mission to the project area, including participatory stakeholder consultations on poverty, outmigration, and livelihood improvement opportunities in the project area,; and (c) comprehensive 2014 Turkey case study on IFAD's engagement in upper MICs.

15. The following opportunities for improvement were observed: i) strengthening of farmers' organizations (FOs). FOs suffer from: lack of professional management, lack of training, weak financial status and meager financial management capacity, poor, if not total lack of, cooperation among cooperatives resulting in weak umbrella organizations and. limited cohesion within the cooperatives often leading to conflicts among members Representation of women is traditionally low, ii) shifting from subsistence farming to "farming as a business" to sustainably enhance farmers' income. FOs need to be assisted to step up in delivering training to their members on farming-as-a-business, basics of financial tools and use of financial services, improved farm management, orientation to produce based on market information, basic investment analysis and elementary business plan elaboration, as well as diversification into small rural enterprises, iii) having baseline data and effective M&E systems in place, lack thereof has made it difficult to provide a more rigorous indication on project effectiveness, efficiency, performance and impact, iv) addressing protection and management of natural resources in a more systematic way. Greater strategic focus is needed on the nexus between poverty reduction and sustainable management of fragile resource bases and ecosystems, also as an opportunity for innovation, scaling up and replication, v) improved KM and policy dialogue also for greater visibility of IFAD in the Turkish context including the link to South-South cooperation. IFAD has not been an active partner in any government-led fora and donor coordination groups for agriculture and rural development.

16. These lessons learned are integrated in GTWDP design, namely: (i) a strong focus on inclusiveness and direct targeting to reach the rural poor, with active involvement of farmer organizations; (ii) importance of providing support to mobilize farmers into improving their organizational structures to better access markets (e.g. extension support, FST, TA support, advisory services, etc.); (iii) focused guidance on agricultural technology transfers like small-scale processing technology, stronger partnerships with TIKA and GDAR as well as private sector service providers, establishment of the regional agricultural mechanization training center, coordinated SSC initiatives to cover training needs of other project staff countries in NEN; and (iv) focused VCD approach in order to establish strong market linkages through tailored capacity building of FOs for marketing (including the setup of and project co-financing of business proposals) as well as formulation of strategic investment plans for selected value chains, regional branding activities and linkages to other regional business development support initiatives (e.g. EU-IPARD programmes, and KOSGEB [Small and Medium Enterprises Development Organization]) other government-sponsored SME business development support service providers, and linking the respective VCD approach to the objective of building farmers resilience to climate change.

17. The project KM framework will inform the project learning agenda as per the project outputs, outcomes and impact defined in the log frame. This entails M&E products like RIMS/TARBIL fact sheets or assessment studies on capacity building needs, methodological tools and systems to better integrate KM and M&E in project design and implementation support. Linkages with the Agricultural Monitoring and Information System (TARBIL) are envisioned in terms of establishing complementarity with TARBIL-generated data for project management-related purposes, including potential data collection purposes for the development of baseline/household survey methodologies and impact assessment.

18. Thematic knowledge products including KM methods and spaces (capacity building, learning and knowledge sharing events, Communities of Practice, South-South initiatives) will be developed and disseminated, targeted widely including beneficiary communities, development practitioners and policy makers. These would cover: knowledge and lessons learned database (good/bad practices, problem solving strategies, “how to” notes), country fact sheets, thematic case studies, learning routes<sup>61</sup>, exchange visits, expert consultations, conferences and forums, among others. This will allow for a systematic documentation and sharing of evidence-based lessons learned, as well as good and bad practices. Ultimately, the M&E and learning results would feed into planning and implementation of operations and strategy development. Beyond deriving project-management related implications and recommendations to enhance project performance, the envisaged learning outcomes will also drive the future project scaling up strategies and pathways as well as serve as a basis for south-south cooperation, policy dialogue and project pipeline development.

19. GTWDP Project staff will be trained in building effective learning and adaptation processes into the project M&E system and project management cycle. This will constitute an integrated process of rigorous M&E, effective learning and knowledge application, and continuous performance enhancement that is shaped by tailored capacity building at project level, and will be adopted in the second phase of the programme. A part-time Private Sector and Rural Development Coordinator would be employed in the CPMU. All the financing needs related to the forum itself, including the Coordinator’s salary, will be covered by the project.

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<sup>61</sup> A learning route is a method combining the usual study tour approach with an added knowledge transfer responsibility ascribed to the participants themselves who take turns in serving as trainers and trainees during the route.



## Appendix 7: Financial management and disbursement arrangements

### Financial Management Risk Assessment

#### Inherent Risks: Country Issues, Entity Risks and Project Design

1. The country risk is rated as **Medium**. In 2104, Transparency International's Corruption Perception Index ranked Turkey 74 of 175 countries (down from 53 of 177 in 2013) with a score of 45 (down from 50 in 2013).
2. In line with the overall governance indicators that serve as a foundation for anti-corruption performance, Turkey has been performing relatively better than the Europe Central Asia upper middle income countries on a range of corruption indicators. However, further improvements are needed to catch up with the OECD high-income countries. Turkey's score in Transparency International's Corruption Perception Index also confirms this need. Similarly in all levels of public institutions - public administration, judiciary, and legislature – controlling corruption requires additional government attention.<sup>62</sup>
3. The Strategic Framework for Public Expenditure Management Reform introduced a comprehensive approach to public expenditure management in 2001. Enactment of a new Public Financial Management and Control law (2003) formed the cornerstone of the legal framework for the modern public financial management system in Turkey. The Law which addressed a number of weaknesses in the existing system (i) brought forward the concept of 'general government' incorporating a comprehensive definition for public revenues and expenditures, ii) introduced a medium term approach to budget preparation in line with strategic planning, iii) provided a description of the accountability of ministers and heads of public administrations, iv) provided the MOF with clear legal authority to determine budget classifications, accounting and reporting standards for all government agencies, v) delegated financial control responsibilities to spending units, and vi) strengthened government accountability by extending the scope and mandate of the external audit.<sup>1</sup>
4. While there has been a major transformation in the public sector management as a result of the reform initiatives, implementation challenges still remain. These are mainly the lack of linkages between plans, policies and budget, credibility of the medium term fiscal framework, need for improvements in the quality of strategic planning in line agencies, problems in the implementation of the new internal and external audit frameworks, incomplete reform of the public procurement system, need for improved parliamentary scrutiny for the budget preparation and its implementation.<sup>1</sup>
5. In recent years, IFAD's country programme that is implemented by the MFAL in Turkey has consisted of three projects, the recently closed SEDP and DPSDP, and the ongoing AKADP. At the MFAL, the Financial Management and Procurement are outsourced to UNDP. The financial management for these projects are rated satisfactory. MFAL decided that financial management and procurement for GTWDP will be carried out by the Ministry and that will further enhance government capacities.
6. The main strengths lies in the intention for the project to be managed by secondment of some of the experienced and qualified technical staff in disciplines relevant the GTWDP.
7. Challenges for the financial management of this project lie in coordination of the multiple PMUs, which are being utilised for the implementation of the different components. To determine the project specific control risks a Financial Management (FM) risk assessment of the GTWDP and its fiduciary arrangements has been completed including a detailed FM assessment of the General Directorate of Agrarian Reform (GDAR) of Ministry of Food, Agriculture and Livestock (MFAL), Konya and Karaman Provincial Directorates of Food Agriculture and Livestock (PDA). These assessments concluded that the project financial management arrangements and internal control systems would satisfy IFAD's minimum requirements to provide accurate and timely information on the progress of project implementation and appropriate accountability for funds and rated the residual financial

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<sup>62</sup> WB Turkey Governance Diagnostic Assessment 2014

management risk as **Low**, after the implementation of appropriate risk mitigation measures to ensure accountability of funds.

## **Proposed Financial Management and Disbursement Arrangements**

### **Financial Management Organization**

8. Central Project Management Unit (CPMU) will be established and located in Ankara under General Directorate of Agrarian Reform (GDAR) of Ministry of Food, Agriculture and Livestock (MFAL) and will have overall responsibility for project financial management, including over those activities implemented by PPMUs of embedded in the Konya and Karaman Provincial Directorates of Food, Agriculture and Livestock (PDAs). The GDAR Deputy General Director will be responsible for oversight of the entire project.

9. Two Provincial Project Management Units (PPMUs) in Konya and Karaman will be established within PDAs and would be responsible for implementation of projects field activities and charged of day-to-day project management in the field.

### **Financial Management Staffing**

10. The CPMU will be staffed by certifiably experienced Senior Accountant competitively recruited locally whose ToR will be approved by IFAD prior to recruitment process. Each PPMU will have an Accountant seconded from PDA Accounting Department of Konya and Karaman, respectively. All payments transactions from the IFAD Loan and Grant proceeds will be centralised at the CPMU in Ankara. CPMU and PPMUs will be responsible for their respective payments allocated from counterpart contributions. **As condition of disbursement**, the senior accountant that will be recruited at CPMU would undertake the *IFAD e-Learning on Financial Management and Fiduciary Controls* before disbursements begin. This arrangement is expected to help strengthen capacity of CPMU/PPMU of MFAL, and mitigate financial management risks by ensuring acceptable financial accounting and reporting from the start of the project and maintaining a measure of independent checks and balances over project financial matters.

11. Detailed job descriptions for financial staff will be included in the PIM. Competitively recruited Senior Accountant at CPMU will be hired through an annual contract, renewable based on satisfactory performance. Changes of Senior Accountant may be at the request of IFAD or Government of Turkey with the agreement from the other. Appendix 7.3 lists the roles of implementing units in carrying out the various task.

### **Accounting and financial reporting arrangements**

12. The Ministry of Finance (MoF) maintains the accounts of general budget institutions and executes their payments through MoF Accountants located on site/in province. For that purpose, MOF has developed a web-based Public Expenditures and Accounting Information System. CPMU payments from IFAD Loan, IFAD Grant and Government of Turkey Counterpart Contribution proceeds and PPMUs payment from Government of Turkey. Counterpart Contribution proceeds all will be performed through MoF system and in local currency. The payments in local currency are converted to designated account currency applying the exchange rate on the date of payment. Given the limitation of access to MoF reporting module of the system, CPMU of GDAR through MFAL's in house IT expertise would develop a web-based Management Information System (MIS) in the first year of project implementation. The system will include accounting, budgeting and reporting, procurement and contract management, monitoring and evaluation Modules etc. The MIS would enable the CPMU to generate financial reports, Withdrawal Applications (WA) and Statement Of Expenditures (SOEs) as per IFAD reporting requirement and to move from Excel-based financial reporting mechanism. Training on MIS will be provided to relevant CPMU and PPMU staff.

13. All accounting policies and procedures, related to the project will be clearly documented in the PIM and making reference to MoF system manual.

14. The PPMUs will submit monthly financial reports to CPMU on incurred expenditures from Government of Turkey counterpart contribution on project activities and Taxes.

15. The CPMU and PPMUs will record eligible expenditures as they are incurred at the CPMU and PPMUs respectively following national accounting standards (Cash basis).

16. Beneficiaries in cash contribution on matching grant will be recorded under separate account code within the accounting module of MIS.

17. The CPMU will prepare monthly-consolidated financial reports for dissemination to project management at Ankara, Konya and Karaman provinces. The quarterly consolidated unaudited financial reports will be submitted to IFAD. The Financial Statements will be in formats acceptable to IFAD and samples of the same should be available in the financial management arrangement of the PIM. The financial reports will provide information to the project management and stakeholders to facilitate decision processes.

18. The CPMU will consolidate its accounts including those of PPMUs in Konya and Karaman provinces and produce financial statements in accordance with the accounting standards used by Government of Turkey for external audit in line with IFAD's General Condition. Audited financial statement will be submitted to IFAD within six months of the end of fiscal year (31 December).

### **Internal controls**

19. Controls are considered adequate. There is segregation of duties given the distinctive feature of the accounting system in Turkey. The MOF maintains the accounts of general budget institutions including foreign funded projects budgets and executes their payments through MOF accountants located on-site/in-province.

20. The payment process cycle goes through several steps: i) the payment request will be prepared by the respective CPMU/PPMU, ii) they are reviewed by the accountant and approved by relevant budget holder at GDAR CPMU and PDA PPMU; iii) the approved payment requests (s) are will be inputted into Public Expenditures System by Accountant and, and iv) approved payment request with original supporting documents are submitted to MoF's on site Accountants for their review and execution. The payments are all through bank transfers.

21. Internal controllers at the PDAs carry out regular tests of internal controls and are responsible for risk assessment.

22. All internal control mechanism will be detailed within the financial management arrangements of the PIM and will be prepared before disbursement begins, including those for matching grants to individuals framers and existing and new enterprises, informal groups, famers associations, new SMEs etc. IFAD will be requested to provide a No Objection on the PIM.

### **Budgeting**

23. All project activities for all components and sub-components will be included in an Annual Work Plan and Budget (AWPB). The AWPB will indicate what activities and expenditures will be implemented at Central, Provincial, and District (including village levels, and the extent to which budgeted expenditures are intended to be financed from each financing source (IFAD Loan, IFAD Grant, Counterpart funds and Beneficiaries). Budgets will be in a format that includes the quarterly financing requirements for each financier separately.

24. The PPMUs and CPMU will submit to the Ministry of Development (MOD) for their review the project's proposed consolidated budget by the end of June of the preceding year. The proposed budget is subject to negotiations with MOD to determine the final budget allocation. The final approved allocation from IFAD and counterpart contribution is decided on Sep/Oct. The agreed/approved final budget allocation will be included in the national investment plan.

25. Based on the approved allocation the budget initiation will begin at the village level and is facilitated by Farmer Support Teams and consolidated by CPMU for the entire project. Annual workshop will be held between CPMU and PPMUs to facilitate finalisation and consolidation of AWPB. The CPMU will be responsible for consolidation of AWPB including the procurement plan and submission to the GDAR of MFAL-General Director and consequently IFAD for approval two months before the end of the fiscal year. AWPBs, once approved, will be available to all Project parties and staff.

26. The approved budget will be incorporated in the MFAL Strategic Planning and MoF web based budgetary Systems in accordance with government budgetary charts of accounts. Management Information System will include a Module that will allow for budgeting that facilitates tracking of actual against budgeted expenditures by financing category, component and sub-

component. To facilitate course correction for variance from budget, a quarterly project management meeting will be conducted between CPMU and PPMU to review the financial performance and to determine if any amendments are required.

### **Disbursement Arrangements and Flow of Funds**

27. The project will use available disbursement methods of replenishment, reimbursement and direct payments. It is expected that most expenditures will be through the designated account using the Imprest mechanism. The ceiling authorised allocation will be based on budget for around one year.

28. Two Designated Accounts will be opened for the project at the Central Bank of Turkey in EUR for the IFAD Loan and IFAD Grant separately. The accounts will receive funds from IFAD and will be managed by the CPMU.

29. Counterpart contribution for project activities and foregone taxes will be made available at the beginning of each fiscal year for CPMU and PPMUs through a single Treasury code/MOF as per approved budget allocations.

30. All requests for payments against expenditures incurred are made through the MOF web based Public Expenditure System. Funds then flow to the recipient directly from the IFAD Loan/Grant and counterpart accounts within an average of two days after payment has been approved by MOF on site accountants.

31. The Project will be allowed to use Direct Payment only for expenditures that are in excess of 30% of the advance to the Designated Account. Replenishment Applications will be prepared by the CPMU and will be submitted to IFAD, at a minimum every quarter or when 30% of the designated account has been utilized for eligible expenditures, whichever occurs earlier. Details regarding the designated account allocations and SoE thresholds will be found in the Letter to the Borrower/Recipient.

32. Beneficiaries cash contribution on matching grant activities will be deposited into suppliers, contracts and services providers bank accounts in advance and before payment can be made by project to supplier/service providers. The bank advice of the deposit will be submitted along with other supporting documents for project contribution payment process.

33. **Matching Grant - Eligible Expenditure.** Sub-component 1.1 Improved Agriculture Productivity and Quality and sub-component 2.2 Value Chain Development. Matching grants will require a sizable flow of funds to beneficiaries (about USD4.5 million). Matching Grants disbursement mechanism as detailed in the PIM will be in place before disbursements can commence. For Matching Grants, "eligible expenditure" is defined (for purposes of Schedule 2 of the Financing Agreement) as "*transfer of funds from CPMU to the bank accounts of relevant suppliers, contractors and service providers for equipment and goods physically received by beneficiaries or services rendered*".

34. The Funds Flow arrangement to meet eligible project expenditures are set out in a Chart in Appendix A7.1 below.

### **Internal Audit**

35. The MFAL has an Internal Audit Department (IAD) that is established as a part of the new public financial management framework. The (IAD) will audit project transactions and ensure that funds received by the intended beneficiaries are part of the IAD's intra-ministerial audits plans.

36. Complaints handling system for Project communities will be prepared and implemented according to the PIM and monitored by the CPMU.

### **External Audit**

37. The Project's consolidated financial statements, including the reconciliation of the Designated Accounts will be audited annually by the Treasury Controllers in accordance with International Auditing Standards and in compliance with IFAD's Guidelines on Project Audits. The Treasury Controllers are the external auditors for all internationally funded projects including on-going IFAD and WB implemented by the ministries in Turkey. Auditor Terms of Reference will include certification of the consolidated project financial statements, the Statements of Expenditures and completion of additional controls as deemed necessary. The auditors TOR should be submitted for IFAD No



Objection at least one month before the end of the fiscal year to ensure that audit reports are submitted to IFAD within six months after the end of the fiscal year. The audit will cover all project aspects, internal controls in all operations implemented under GTWDP and sources and uses of funds.

38. MFAL, hence the PDA, are subject to the audit of Turkish Court of Accounts (TCA) – the supreme audit Institution in Turkey.

#### **Anticorruption and Good Governance Framework**

39. The primary responsibility of detecting fraud and corruption lies with the borrower. However, the Programme should note IFAD applies a Zero Tolerance Policy towards fraudulent, corrupt, collusive or coercive actions in projects financed through its loans and grants. “Zero Tolerance” means that IFAD will pursue all allegations falling under the scope of this policy and that appropriate sanctions will be applied where the allegations are substantiated. IFAD shall take all possible actions to protect from reprisals individuals who help reveal corrupt practices in its project or grant activities and individuals or entities subject to unfair or malicious allegations. Given IFAD’s Zero Tolerance described above, it is important that the staff and all stakeholders of the Programme are familiar with IFAD’s as well as national anticorruption policies and whistle blowing procedures. The IFAD anticorruption policy is available on the IFAD website at [www.ifad.org/governance/anticorruption/index.htm](http://www.ifad.org/governance/anticorruption/index.htm)). The IFAD website also provides instructions on how to report any alleged wrongdoing to the Office of Audit and Oversight (<http://www.ifad.org/governance/anticorruption/how.htm>).

#### **Supervision and implementation support plan (FM)**

40. In light of the risk assessment, in the first two years of implementation the supervision plan of project will especially focus on the following actions:

- At least two on-site visits that will involve inter alia visits to beneficiaries of the matching grants, civil works and updating the FM assessments.
- Detailed review of adequacy of the staffing arrangements at the CPMU and PPMUs.
- Detailed review of the Financial Management Arrangement to PIM including, relevant policies, guidelines and criteria with regards to the Matching Grants activities.
- Detailed review of the MIS and financial reports produced by system and the use of budget controls by the PIU,
- Detailed review of the fixed asset register.
- Detailed review of records management, back up and the use of the Statement of Expenditure (SOE) procedure and the applicable SOE-thresholds (adequacy of supporting documentation) by the CPMU and PPMUs.
- Follow-up on work performed by the Internal audit department.

41. The supervision process will be complemented by desk review of progress and financial reports, the project’s annual financial statements, internal audit reports, and annual audits.

#### **Taxation**

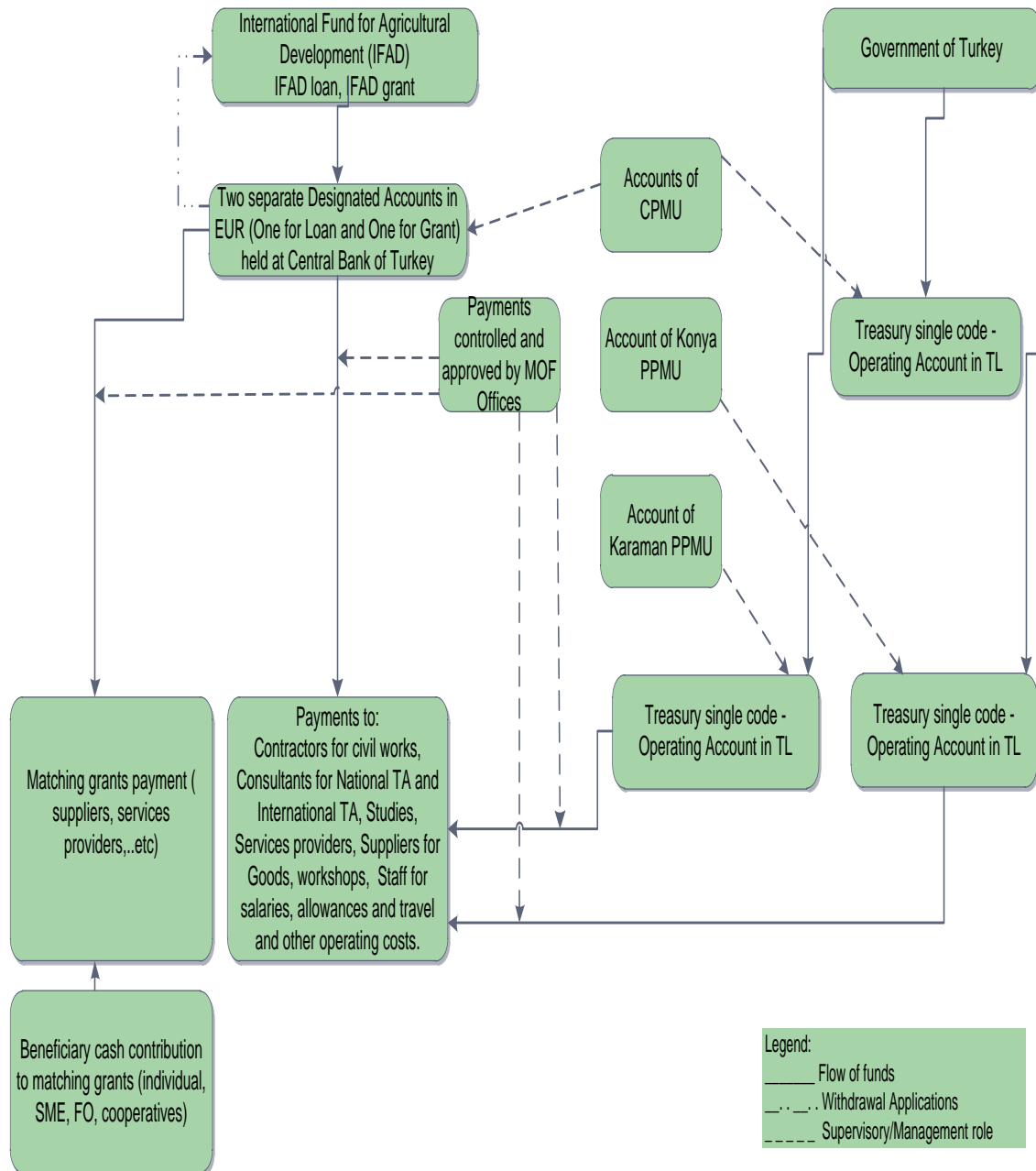
42. IFAD Loan and Grants proceeds cannot be utilized for the payment of Taxes.

**FM Actions Summary.** The actions required to mitigate FM risks are summarised below:

	<b>Action</b>	<b>Target Date, Covenant</b>
1	Qualified Senior Accountant to be hired through a competitive process and TORs cleared by IFAD.	Disbursement condition
2	CPMU Senior Accountant to be required to complete IFAD e-learning on FM procedures and submit certification to IFAD.	First quarter of the Year 1 of project implementation.
3	Any changes to the structure of the CPMU and PPMUs require agreement with IFAD.	Disbursement Condition in Legal Agreement
4	Draft Project Implementation manual (including matching grant disbursement mechanism) and investment guidelines and selection criteria have been established.	Disbursement condition
5	Opening of Designated Account	Disbursement condition
6	MIS for use by project to produce financial reports , WAs and SOEs to be operational at both CPMU and PPMUs	Year 1 of project implementation
7	Quarterly financial progress reports to be prepared and submitted to IFAD	Dated covenant
8	Agreement on audit TOR, including extension of TOR to internal control review.	Start-up and 1 month before the end of each fiscal year.

## Appendix 7.1. Flow of Funds

### Appendix 7.1 – Flow of Funds for GTWDP





## Appendix 7. 2. Project Control Risk – Summary

Risk Category	Initial FM Risk Rating (H/M/L)	Proposed Risk Mitigating Measures	Residual FM Risk Rating (H/M/L)
<b>Inherent Risks</b>			
Country Level TI rating was lowered putting Turkey at 64/175 countries in 2014.	Medium		Medium
Entity and Project design First time that MFAL will be responsible for IFAD funds' Financial Management and Procurement. Project spread over two provinces, 11 districts and 212 villages. Konya and Karaman, will implement most of project activities.	High	CPMU will be established and staffed through secondment of experienced technical staff from within the MFAL, Senior Accountant will be hired from the local market on competitive basis. PPMU will be established for each of two provinces will be staffed through secondment of experienced technical staff and an accountant from within the PDA for the implementation of the project. Project will hire from local market to fill any capacity gaps and for jobs that requires specific set of skills. mobilized to also be trained on IFAD procurement.	Medium
<b>Project Control Risks</b>			
1. Organization & Staffing Adequate qualified finance staff with prior experience and knowledge of donor procedures are difficult to find within MFAL Institutional and organizational aspects due to number of entities (GDAR and PDA) may result in coordination problems, flow of information bottlenecks and reporting delays. The matching grant may be used by beneficiaries for other purposes than those intended during the Project Implementation or directed to elite capture Turnover in senior accountant position	High	Senior Accountant at CPMU to be recruited from Market and PPMUs Accountants to be seconded from PDAs. Senior Accountant contracts to be performance based. Staff ToR to be cleared by IFAD before recruitment/secondment Senior Accountant of CPMU (will be required to complete FM training on IFAD procedures and provide certification. Coordination, for all components, will be under the purview of a Project Manager of the implementation team and overall coordination for financial matters will be within the ToRs of CPMU Senior Accountant The beneficiaries financed by the Project must respect eligibility criteria and guidelines of matching grants stated in the PIM and approved by relevant committees. Complaint handling mechanism for community members will be introduced and to be monitored by centrally by PMU	Medium

		and relevant internal controllers Senior Accountant contract to include clause of adequate notice period to allow recruitment for her/his replacement.	
<p>2. Budgeting</p> <p>Project budget will follow a bottom up approach, however capacity at the beneficiary level in understanding and creation of budget is weak. Lack of knowledge of IFAD procedures. Unrealistic budgets. Many layers within the budget creation and approval.</p>	Medium	<p>Budget coordination will remain with the CPMU at Central Level in Ankara. Workshop will be arranged on annual basis for CPMU and PPMU to discuss plan and allow timely preparation of AWBP and consolidation into the overall AWPB</p> <p>Training will be provided to all CPMU and PPMU staff involved in implementation of this Project – including procurement and subject specialists on the preparation of budgets.</p> <p>Budgets to include all sources of financing separately and to show estimates by quarter per component, sub-component and categories.</p> <p>To ensure that timely inputs are received, the CPMU and PPMU will initiate the process five months before the projected budgets are due for MoD.</p> <p>To ensure a realistic budget, deliverables on previous budgets will be reviewed by the technical and financial teams</p> <p>CPMU will present the final consolidated AWBP and procurement to GDAR General Director and IFAD to ensure that timeliness are maintained</p> <p>Quarterly Interim financial reports showing progress against budgets to be standing item agenda of quarterly CPMU and PPMUs meetings and corrective actions to be carried for any significant variances. The interim quarterly financial reports will be submitted to IFAD.</p> <p>IFAD office in Turkey planned to be opened in near future will provide implementation support on process and procedures. Meanwhile the country team based in Rome will provide the support remotely or during field visits.</p>	Low
<p>3. Funds Flow &amp; Disbursements</p> <p>IFAD funds flow through Central Bank and GoT through MoF System monitored by the MoF Accountants.</p>	Medium	<p>Budgeting issues will be mitigated, thereby facilitating the forecast of funds utilization.</p> <p>CPMU Senior Accountant will be</p>	Low

<p>Implementation delays due to lack of knowledge of IFAD procedures and limited abilities to forecast liquidity needs.</p>		<p>required to complete FM training on IFAD procedures and provide certification</p> <p>CPMU Senior Accountant to monitor flow of funds too.</p> <p>Clearly detailed fund flow arrangements and continuous follow-up of the same within the first year of implementation to ensure any course corrections will be made to mitigate risk of liquidity problems and those hinder smooth Flow of Funds.</p> <p>Financial implementation manual will be condition to disbursement and knowledge of the same will mandatory for all staff involved in finance.</p>	
<p>4. Internal Control</p> <p>Weak control structure due to vast distances between Centres and villages.</p>	<p>Medium</p>	<p>Project FM Manual will prescribe detailed procedures, including Districts offices involvement</p> <p>Internal Controllers at PDA will ensure controls are in place at PDA levels and report control weakness and recommend correction</p> <p>The internal audit department of MFAL will be required to carry periodic audits including sites visit to ensure funds have been utilized effectively and for the purposes intended.</p> <p>MoF accountants located at the sites will review and approve payments.</p>	<p>Low</p>
<p>5. Accounting Systems, Policies &amp; Procedures</p> <p>MoF Web based Public Expenditures do exits and mandatory for executing any payment from national budget including international funded projects. Manuals for the system are also available and updated whenever system is upgraded.</p>	<p>Low</p>	<p>No additional measure to be taken</p>	<p>Low</p>
<p>6. Reporting &amp; Monitoring</p> <p>Excel financial reports prevails</p> <p>Unable to produce financial management reports per IFAD requirements.</p> <p>Delay to produce and transmit financial statements and audit reports, due to the number of implementing agencies involved in the project.</p> <p>Dual systems are being used MoF system and MIS lead to discrepancies.</p>	<p>High</p>	<p>Web based Management Information System will be developed by MFAL in house IT expertise during the first year of implementation. The system will include financial reporting module, which will enable the project to generate report as per IFAD requirement, SOEs and WA.</p> <p>Training on MIS system ( Budget and Financial Reporting Module) will be provided for all finance staff involved.</p> <p>Reporting and monitoring</p>	<p>Medium</p>

		<p>requirement will be detailed within PIM.</p> <p>Specific transmission of financial reporting procedures between the PDA PPMUs and CPMU.</p> <p>Data recorded in MIS to be reconciled on monthly basis with MoF system and ensure timely correction for any identified discrepancies.</p>	
<p>7. Internal Audit</p> <p>Periodic reporting of internal control weaknesses to MFAL internal audit.</p> <p>The Internal audit function does not exist at the provinces, district and village levels.</p>	Medium	<p>Internal controllers of PDAs to report on quarterly basis on effectiveness of Internal Control to PDAs Directors and MFAL Internal Audit Department in Ankara.</p> <p>Internal Audit will be carried periodically through inter-ministerial audit plans. The internal audit cover will include villages to the extent possible and carry on sites visits.</p> <p>TOR of external auditors to be extended to include review of internal controls and field visits.</p>	Medium
<p>8. Auditing</p> <p>The Treasury controllers will be the auditors of the project as they are for the current IFAD and WB project. The assessment of previous year audit reports for on-going IFAD project were rated satisfactory. The Treasury controllers received capacity building trainings by WB.</p>	Low	No additional measure to be taken	Low
<p><b>Project Fiduciary Risk at design:</b>  <b>OVERALL FM RISK</b>          * H=High, M=Medium, L=Low</p>	<b>MEDIUM</b>		<b>LOW</b>



## Appendix 8: Procurement

### Summary of Procurement Assessment

1. The Public Procurement Law (PPL) was adopted in Turkey in 2002 in line with EC Public Procurement Directives. Since its adoption, Turkey's public procurement system has undergone several changes (almost each year since 2004) and overall procurement capacity has improved markedly. The Public Procurement Authority under the Ministry of Finance is recognized as a stable and strong institution and is credited with having largely helped to establish a modern public procurement system.
2. The World Bank (WB) no longer carries out Country Procurement Review Assessments (CPRA) but uses their internal CRPAs system for project-based electronically generated assessments. The recommendations of these assessments center on the need to have one or more procurement specialists that are trained in WB procedures where large value contracts are anticipated.
3. The EBRD conducted a review of the public procurement (PP) system as part of a regional study in 2010<sup>63</sup>. In this assessment, Turkey scored 'high compliance' in quality of the legal PP framework with an average 81% compliance rate. According to the review, the Turkish institutional framework is comprehensive and well-managed, with minimal regulatory gaps and no implementation gaps in the PP enforcement were identified. Turkish regulation of PP remedies achieved highest in the EBRD region and is also doing well in practice. Local PPL is very uniform, but not entirely stable, as several amendments have been adopted within the last three years. PP policymaking is reasonably responsive to local market challenges; several integrity safeguards were incorporated and some efficiency instruments, recommended by international PP standards, were also adopted. In the assessment of local PP practice Turkey scored 'high compliance', with an average compliance rate of 86%. Local contracting entities in Turkey are clearly increasing their procurement capacity and learning new purchasing techniques such as e-Procurement which covers public procurement processes and e-procurement, such as notification, tendering, selection and evaluation.
4. Under the PPL, investment projects financed by an international agency subject to Turkish procurement procedures. This assessment confirms that national procurement procedures would be followed in most of the cases - those deemed consistent with IFAD procurement guidelines and Procurement Handbook of September 2010 - with appropriate methods to be determined during procurement planning in accordance with the thresholds set forth in this document and reflected in the Project Implementation Manual (PIM).
5. The GDAR's as well as the CPMU's seconded staff's procurement experience is ample with respect to all procurement categories. Such experience has been accumulated over 8 projects that have been carried out with the MFAL and its previous incarnations. It must be noted that the GDAR operates with an annual budget of over USD700 million, a significant portion of which is for consultancy services and civil works.
6. The procurement arrangements in the GTWDP for civil works, goods, materials and equipment and training and technical assistance that covers consultancy services would be the same as those in the SEDP that closed in 2014, the DSB DP that will close in June 2015 and the on-going AKADP. Intensive training would be carried out by IFAD for new specialist staff at start-up. Although the Field Project Management Unit (PPMU) would not be involved in much of the procurement, they would also participate in the training. It must be noted that the capacity of the GDAR staff has been developed during the close cooperation with the UNDP (under a GSA) for above three projects.
7. **Staffing Structure.** All procurement for the project will be under the oversight of the CPMU who will be assigned one or more GDAR procurement specialists, on secondment, to oversee and

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<sup>63</sup> [http://www.kozbeszerzes.hu/static/uploaded/document/EBRD\\_Annual\\_Meeting\\_Publication\\_print.pdf](http://www.kozbeszerzes.hu/static/uploaded/document/EBRD_Annual_Meeting_Publication_print.pdf)

carry out specific procurement activities. At the PDA level, procurement would be limited to small works, inputs and locally available service providers such as for transport, subject to close supervision by the PPMU procurement specialist. As required by Law, tender specifications and related documents are submitted by the PDA to the GDAR (the “spending authority”) for compliance checks and approval. All other procurement identified for National Bidding and mainly for Technical Assistance (TA), will be carried out by the CPMU at the Central level. The CPMU will also provide the necessary technical support in preparation of specifications, bills of quantities and terms of reference to the PPMU and the PDAs as required. Depending on the method of procurement and responsible entity, bids would be evaluated by the respective Bid Evaluation Committees comprising technical specialists of the relevant line agency and representatives of the GTWDP at GDAR, CPMU, PDA, or PPMU, levels as appropriate.

8. The PDA cadres, through the seconded staff at the PPMU, would carry out the procurement of some works and small quantities of locally available goods. These cadres are knowledgeable on national procurement procedures that would be used in the procurement scales anticipated the field level. However, since these staff would also be involved in the preparation of AWPBs, they would be trained in IFAD procedures to better understand the implications in terms of time and cost of their requests.

### **Arrangements for Procurement under the Project**

9. For each contract to be financed by IFAD proceeds, the types of procurement methods, the need for pre or post-qualification, estimated cost, prior review requirements and time frame are agreed between the Borrower and IFAD respectively in the Procurement Plan. As a general rule and excepting civil works, any procurement estimated to cost more than USD 75 000, or equivalent, will be subject to National Competitive Bidding.

10. **IFAD Financed Procurement of Goods, Works and Services.** While specific thresholds for procurement financed under the project will be stipulated in the Letter to the Borrower, the general recommendations are the following:

11. Goods estimated to cost more than USD 200 000 equivalent per contract may be procured through International Competitive Bidding (NCB) method using the World Bank’s applicable Standard Bidding Documents (SBDs).

12. Goods estimated to cost between USD 75,000 and USD 200,000 equivalent per contract may be procured through National Competitive Bidding (NCB). Goods estimated to cost less than USD 75 000 equivalent per contract may be procured through the National Shopping method. Below USD 15 000 equivalent, direct contracting can be used under Turkey’s PPL.

13. Works estimated to cost more than USD 1 000 000 equivalent may be procured through International Competitive Bidding (ICB) method using the World Bank’s applicable SBDs. Works estimated between USD 75 000 and USD 1 000 000 equivalent may be procured through the NCB. While works estimated below USD 75 000 may be procured through National Shopping. In accordance with the PPL, works estimated below USD 25 000 may be procured through direct contracting. Direct contracting and/ or through utilization of Pre-Qualified lists will have to be identified and approved by IFAD in advance for those cases which justify use of such method.

14. Contracts for civil works would be tendered in packages that best fit the distribution of the investments in any portion of the project area. Individual, village or beneficiary-level contracting would be avoided to facilitate planning and optimize on the transaction costs.

15. Consultancy services generally estimated to cost more than USD 100 000 equivalent for firms and USD 50 000 equivalent for individuals will be on the basis of Quality and Cost Based Selection method. However, the specific nature of the assignment will finally determine the method of procurement to be followed and will be pre-determined in each annual procurement plan.

16. **Prior Review Thresholds.** For the purposes of Appendix 1, para. 2, of IFAD’s Procurement Guidelines, the following shall be subject to prior review by the Fund:

- i. Award of any contract for goods and equipment to cost USD 100 000 or equivalent or more;
  - ii. Award of any contract for works estimated to cost USD 150 000 or equivalent or more;
  - iii. Award to a firm of any contract for consulting services estimated to cost USD 75 000 or equivalent;
  - iv. Award to an individual of any contract for consulting services estimated to cost USD 30 000 equivalent and more; and
  - v. Award of contract for more than 15 000 through direct contracting and at least the first two contracts for the purchase of seedlings through direct contracting.
17. The above thresholds may be modified by IFAD during the course of project implementation unilaterally or based on the request from the GDAR derived from experiences in the field,
18. Procurement carried out at field level is entered into the E-budget system and registered against the AWPB (translated into implementation plans at provincial level). In addition, all contracts, with or without prior IFAD approval, will be listed in the Register of Contracts maintained by the procuring entity with the dates of approval as provided by IFAD. As this report facilitates the review and approval of payment requests on contracts, it is to be updated and submitted to the IFAD country programme manager on a quarterly basis. The sample form to be used and instructions are detailed in annex 6 of IFAD's Loan Disbursement Handbook. It would also be necessary that the CPMU at GDAR prepare annual statistics for the overall procurement transactions carried out for the project.
19. **Bidding Documents.** All bidding documents for the procurement of goods, works and services would be prepared by the GDAR and/or CPMU specialist(s) as required. At the provincial level, the responsible team PDA and/or PPMU would prepare the procurement documents under the overall guidance of the CPMU. All the procurement documents would be cleared by the GDAR before any action is taken.
20. **Classification of procurement items:**
- a) Procurement of Goods. The goods to be financed under the project include but are not limited to the following: fruit tree seedlings, vegetable seed and seedlings, plastic for greenhouses and mulching, electric fencing, solar cells for power generation, drip irrigation equipment, measurement equipment, GIS software. The contracts for the procurement of locally available goods would be procured through NCB in accordance with Turkey's PPL.
  - b) Procurement of Works and Technical Services. The works to be financed under the project include, but are not limited to, the following: construction of small-scale irrigation works, construction of agricultural terraces, and construction of access roads to pastures. These contracts would be procured through NCB in accordance with procedures acceptable to IFAD. The procedures with respect to NCB would apply for those under the Public Procurement Law No 4734 dated 4 January 2002, and its amendments.
  - c) Procurement for Consulting Services. The consulting services to be financed under the project include but are not limited to the following: topical specialists for subjects including but not limited to marketing advisory services, business development advisory services, value chain brand management specialists; and, other experts to undertake studies as required. IFAD Procurement thresholds and guidelines would apply for the procurement of consultants. Depending on the nature and cost of the service to be provided, one of the following methods would be employed:
    - Quality and Cost Based Selection (QCBS), specifically for the marketing advisory services;
    - Selection based on Consultants' Qualifications (CQ); and

- Individual Consultants (IC): For the individual consultants to be hired for more than six months duration, the positions would be advertised for expressions of interest in international and/or national media depending on the expertise required, and selection would be based on comparison of qualifications of those expressing interest.
  - Suitable agricultural input is available from private sources on localized marketplace; it would be procured: (i) through national shopping procedures for contracts less than USD 50 000 equivalent, and (ii) through national competitive bidding procedures satisfactory to IFAD for all other contracts.
- d) Direct Contracting. Direct contracting would be used for some expenses related to venues for training, village/ community based events such as awareness campaigns, farmer exchange and exposure visits, and visits to demonstration sites. Travel and accommodation expenses under recurring costs would be direct contacted.

### **Governance and Anti-Corruption (GAC)**

21. GTWDP activities would be implemented by the central and provincial Government structures, contracted suppliers and service providers, and the upland village communities in the Project area. All financial and material transactions of the project would be subject to Turkey's robust prevailing governance framework and comply with IFAD's exacting requirements of transparency and rectitude. In accordance with Article 3(c) of the PPL, government offices, provincial and municipal administrations have internal audit units and are also subject to external audits by the Inspection bodies and Supreme Accountancy of the GOT under the Turkish Court of Accounts (TCA).<sup>64</sup>

22. The national PPL contains significant provisions on probity and anti-corruption. It provides for sanctions and penalties in the event of discovery, which applies to both individuals and companies and can lead to temporary or permanent disbarment, depending on the severity or frequency of the crimes. In the event of criminal activity, the PPL provides for action by the public prosecutor and the criminal authorities. The level of transparency in procurement opportunities is high and the resulting participation by economic operators appears to be good in most areas. Contracting entities are appreciative of the amendments to the PPL, which was helped by prior consultation.

23. In particular, good governance measures built in to the project would include (a) undertaking all necessary measures to create and sustain a corruption-free environment for activities under the project; (b) instituting, maintaining and ensuring compliance with internal procedures and controls for activities under the project, following international best practice standards for the purpose of preventing corruption, and shall require all relevant ministries, agents and contractors to refrain from engaging in any such activities; (c) complying with the requirements of IFAD's Policy on Preventing Fraud and Corruption in its Activities and Operations; and (d) ensuring that the Good Governance Framework, (to be provided at final design), is implemented in a timely manner.

24. Government shall also ensure that: (i) it is engaged actively to allow potential Project beneficiaries and other stakeholders to channel and address any complaints they may have on the implementation of the project; and (ii) after conducting necessary investigations, the Government shall report immediately to IFAD any malfeasance or maladministration that has occurred under the project.

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<sup>64</sup> The Turkish Court of Accounts (TCA) is responsible for external audit. The legal framework governing its operations is based essentially on Law 832 on the Court of Accounts, enacted in 1967 (as amended). Law 5018 on Public Financial Management and Control (PFMC), in force since December 2005 (as amended), also governs some of the TCA's general responsibilities.

## Appendix 9: Project cost and financing

### Project Costs

1. The total investment and recurrent costs, including physical and price contingencies, is estimated at USD 25 million (TL 71.25 million). Table 12 below presents the Project costs by components; Table 13 shows the project costs (including contingencies) by component and by years.

**Table 12: Project Cost by Component**

Goksu-Taseli Watershed Development Project Components Project Cost Summary		(TL Million)			(US\$ Million)			% Foreign Exchange	% Total Base Costs
		Local	Foreign	Total	Local	Foreign	Total		
1. Agricultural Productivity and Natural Resource Management		47.06	0.04	47.10	16.51	0.01	16.53	-	71
2. Market Access Enhancement and Value Chain Development		13.17	-	13.17	4.62	-	4.62	-	20
3. Project Management Unit		5.63	-	5.63	1.97	-	1.97	-	9
<b>Total BASELINE COSTS</b>		65.85	0.04	65.89	23.11	0.01	23.12	-	100
Physical Contingencies		2.79	-	2.79	0.98	-	0.98	-	4
Price Contingencies		2.57	0.00	2.57	0.90	0.00	0.90	-	4
<b>Total PROJECT COSTS</b>		71.21	0.04	71.25	24.99	0.01	25.00	-	108

**Table 13: Project Components by Year – Totals Including Contingencies**

Goksu-Taseli Watershed Development Project Project Components by Year -- Totals Including Contingencies (US\$ Million)		Totals Including Contingencies							Total
		2016	2017	2018	2019	2020	2021	2022	
1. Agricultural Productivity and Natural Resource Management		0.48	1.65	3.07	3.51	3.78	3.28	2.45	18.21
2. Market Access Enhancement and Value Chain Development		0.22	1.06	2.85	0.16	0.16	0.15	0.13	4.74
3. Project Management Unit		0.27	0.33	0.30	0.28	0.25	0.25	0.37	2.05
<b>Total PROJECT COSTS</b>		0.97	3.03	6.22	3.96	4.19	3.68	2.94	25.00

**Table 14: Expenditure Accounts by Components – Total Including Contingencies**

Göksu-Taseli Watershed Development Project

**Expenditure Accounts by Components - Totals Including** (US\$ Million)

	<b>Agricultural Productivity and Natural Resource Management</b>	<b>Market Access Enhancement and Value Chain Development</b>	<b>Project Management Unit</b>	<b>Total</b>
<b>I. Investment Costs</b>				
A. Works	2.58	-	-	2.58
B. Equipment and Materials	3.14	-	0.05	3.19
C. Goods, Services and Inputs	8.82	0.10	-	8.92
<b>D. Consultancies</b>				
1. Consultancies /a	0.08	0.27	-	0.36
2. Consultancies /b	-	-	0.19	0.19
3. Consultancies /c	0.04	0.04	-	0.08
<b>Subtotal</b>	<b>0.12</b>	<b>0.31</b>	<b>0.19</b>	<b>0.62</b>
E. Training	2.72	0.34	0.63	3.69
F. Workshop	-	-	0.15	0.15
G. Grants and Subsidies	0.50	3.95	-	4.45
<b>Total Investment Costs</b>	<b>17.89</b>	<b>4.70</b>	<b>1.01</b>	<b>23.60</b>
<b>II. Recurrent Costs</b>				
A. Salaries and Allowances	-	-	1.00	1.00
B. Vehicles	0.11	-	-	0.11
C. Other Operating Costs	0.22	0.04	0.04	0.29
<b>Total Recurrent Costs</b>	<b>0.32</b>	<b>0.04</b>	<b>1.04</b>	<b>1.40</b>
<b>Total PROJECT COSTS</b>	<b>18.21</b>	<b>4.74</b>	<b>2.05</b>	<b>25.00</b>
Taxes	2.33	0.60	0.03	2.97
Foreign Exchange	0.01	-	-	0.01

\a Domestic consultancies  
 \b International consultancies  
 \c Studies

## Project Financing

2. The Project is forecast to total USD 25 million of which USD 18.21 (or 72.8% of the total) will go to finance Component 1: Improved Agricultural Productivity and Natural Resource Management, USD 4.73 million (or 18.9% of the total) to finance Component 2: Market Access Enhancement & Value Chain Development and USD 2.05 million (or 8.2%) for Component 3: Project Management Unit.
3. The IFAD loan will fund 71.6% of total Project costs, of which 68.5%, 83.7% and 70.8% will go to fund component 1, 2 and 3, respectively. An IFAD grant of USD 400,000 will be used to finance technical assistance and study tours in component 2, which equates to 1.6% of Project funding.
4. The Government contribution will be used to finance taxes and duties as well as 15.7% of component 1, 2.1% of component 2 and 14.1% of component 3 costs.
5. Approximately USD 2.85 million (or 11.4% of the total) will be provided by the primary beneficiaries within the project area, mainly as contributions in small-scale agriculture investments.

	Taxes		Government		IFAD		IFAD Grant		Beneficiaries		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
1. Agricultural Productivity and Natural Resource Management	575.09	3.2	2 852.44	15.7	12 474.17	68.5	83.62	0.5	2 226.23	12.2	18 211.55	72.8	14.50	15 865.00	2 332.06
2. Market Access Enhancement and Value Chain Development	0.00	-	100.50	2.1	3 962.47	83.7	41.22	0.9	632.64	13.4	4 736.83	18.9	-	4 133.84	602.98
3. Project Management Unit	33.12	1.6	289.98	14.1	1 453.36	70.8	275.16	13.4	-	-	2 051.62	8.2	-	2 018.50	33.12
<b>Total PROJECT COSTS</b>	<b>608.22</b>	<b>2.4</b>	<b>3 242.92</b>	<b>13.0</b>	<b>17 890.00</b>	<b>71.6</b>	<b>400.00</b>	<b>1.6</b>	<b>2 858.87</b>	<b>11.4</b>	<b>25 000.00</b>	<b>100.0</b>	<b>14.50</b>	<b>22 017.34</b>	<b>2 968.16</b>

## **ANNEX 1: Detailed Cost Tables**

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Table 1: Improved Agricultural Productivity & Natural Resource Management – Detailed Costs

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Table 5: Expenditure Account Project Cost Summary

Table 6: Project Components by Year – Base Costs

Table 7: Expenditure Account by Years



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**Table 1: Improved Agricultural Productivity & Natural Resource Management – Detailed Costs**

Detailed Costs		Quantities												Unit Cost												Base Cost (US\$ '000)												Totals Including Contingencies (US\$ '000)												Parameters (in %)			Other Accounts		
		Unit	2016	2017	2018	2019	2020	2021	2022	Total	(US\$)	2016	2017	2018	2019	2020	2021	2022	Total	2016	2017	2018	2019	2020	2021	2022	Total	Phy. Cont.	For. Rate	Gross Exch. Tax Rate	Component	Expenditure Account	Disab. Acct.	Fin. Rule	Proc. Acct.	Proc. Method																			
<b>I. Investment Costs</b>																																																							
<b>A. Investments in Crop Production</b>																																																							
<b>1. Improvements under Rainfed Conditions</b>																																																							
<b>a. Forage Crop Production</b>																																																							
Certified seed of Hungarian vetch	ha	-	25	25	50	50	50	50	250	78	-	2.0	2.0	3.9	3.9	3.9	3.9	19.5	-	2.1	2.1	4.3	4.3	4.4	4.4	21.6	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																			
<b>b. Pulse Production</b>																																																							
Certified antirakose-tolerant chickpea seed	ha	-	200	400	500	500	400	2,500	242	-	48.4	96.8	121.0	121.0	121.0	96.8	605.0	-	52.1	105.2	132.8	134.1	135.5	109.5	699.2	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																				
Certified high-yielding lentil seed	ha	-	25	50	75	100	150	100	500	131	-	3.3	6.6	9.8	13.1	19.7	13.1	65.5	-	3.5	7.1	10.8	14.5	22.0	14.8	72.8	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																			
<b>Subtotal</b>											-	53.6	103.4	130.8	134.1	140.7	109.9	670.5	-	55.6	112.3	143.6	148.7	157.5	124.3	741.9																													
<b>2. Improvements under Irrigated Conditions</b>																																																							
<b>a. New Orchard Establishment</b>																																																							
Dwarf or semi-dwarf certified seedling - Cherry	ha	-	10	25	40	40	40	30	185	3,500	-	35.0	87.5	140.0	140.0	140.0	105.0	647.5	-	37.7	95.1	153.7	155.2	156.7	118.7	717.1	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																			
Improved harvestwear	ha	-	10	25	40	40	40	30	185	20	-	0.2	0.5	0.8	0.8	0.8	0.6	3.7	-	0.2	0.5	0.9	0.9	0.9	0.7	4.1	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																			
Fencing	ha	-	10	25	50	50	85	30	250	500	-	0.2	0.5	1.0	1.0	1.7	0.6	5.0	-	0.2	0.5	1.1	1.1	1.9	0.7	5.5	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																			
<b>Subtotal</b>											-	40.2	100.5	165.8	165.8	183.3	120.6	776.2	-	43.3	109.2	182.0	183.8	205.2	136.4	859.9																													
<b>b. Existing Orchard Improvement</b>																																																							
Dwarf or semi-dwarf (certified seedling)	ha	-	5	12	25	25	40	15	122	3,500	-	17.5	42.0	87.5	87.5	140.0	52.5	427.0	-	18.8	45.6	96.0	97.0	156.7	59.4	473.6	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																			
Improved harvestwear	ha	-	10	25	50	50	85	30	250	20	-	0.2	0.5	1.0	1.0	1.7	0.6	5.0	-	0.2	0.5	1.1	1.1	1.9	0.7	5.5	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																			
<b>Subtotal</b>											-	17.7	42.5	88.5	88.5	141.7	53.1	432.0	-	19.0	46.2	97.1	98.1	156.7	60.0	479.2																													
<b>c. New Vineyard Establishment</b>																																																							
Grafting Material for Existing Rootstock	ha	-	5	10	15	15	15	15	75	2,505	-	12.5	25.1	37.6	37.6	37.6	37.6	187.9	-	13.5	27.2	41.2	41.7	42.1	42.5	208.2	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																			
Phylloxera-Resistant Rootstock Grafted With Local Varieties	ha	-	15	25	35	35	35	30	175	1,670	-	25.1	41.8	58.5	58.5	58.5	50.1	292.3	-	27.0	45.4	64.2	64.8	65.4	56.7	323.4	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																			
High-Wire Training	ha	-	20	35	50	50	50	45	250	7,000	-	140.0	245.0	350.0	350.0	350.0	315.0	1,750.0	-	150.8	266.2	384.2	388.0	391.9	356.2	1,937.1	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																			
Fencing	ha	-	20	35	50	50	50	45	250	500	-	10.0	17.5	25.0	25.0	25.0	25.0	125.0	-	10.8	19.0	27.4	27.7	28.0	25.4	138.4	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																			
<b>Subtotal</b>											-	187.6	329.3	471.0	471.0	471.0	425.2	2,355.1	-	201.8	357.9	517.0	522.2	527.4	480.8	2,607.0																													
<b>d. Existing Vineyard Improvement</b>																																																							
High-Wire Training	ha	-	5	10	15	15	15	15	75	7,000	-	35.0	70.0	105.0	105.0	105.0	525.0	-	37.7	76.1	115.2	116.4	117.6	118.7	581.7	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																				
Grafting Existing Rootstock With New Varieties	ha	-	5	10	10	10	10	5	50	2,505	-	12.5	25.1	25.1	25.1	12.5	125.3	-	13.5	27.2	27.5	27.8	28.0	14.2	138.2	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																				
Grafting Existing Rootstock With Local Varieties	ha	-	10	10	20	20	20	15	95	1,670	-	16.7	16.7	33.4	33.4	33.4	25.1	158.7	-	18.0	18.1	36.7	37.0	37.4	28.3	175.5	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																			
<b>Subtotal</b>											-	64.2	111.8	163.5	163.5	163.5	142.6	808.9	-	69.1	121.4	179.4	181.2	183.0	161.2	895.4																													
<b>e. Investments in Hygienic Post-Harvest Facilities</b>																																																							
Hygienic On-Farm Drier (semi-commercial)	each	-	25	50	75	125	125	100	500	1,000	-	25.0	50.0	75.0	125.0	125.0	100.0	500.0	-	26.9	54.3	82.3	138.6	140.0	113.1	555.2	6.0	0.0	15.3	AGR_PRO_NRM	EQUIP&MAT	IVL_WORK_DB	IFAD (84%)	.BENEF (< 16% >, FT)	CW_PA	NCB_PM (100%)																			
Hygienic On-Farm Storage (semi-commercial)	each	-	25	50	75	125	125	100	500	1,000	-	25.0	50.0	75.0	125.0	125.0	100.0	500.0	-	26.9	54.3	82.3	138.6	140.0	113.1	555.2	6.0	0.0	15.3	AGR_PRO_NRM	WORKS	IVL_WORK_DB	IFAD (84%)	.BENEF (< 16% >, FT)	CW_PA	NCB_PM (100%)																			
<b>Subtotal</b>											-	50.0	100.0	150.0	250.0	250.0	200.0	1,000.0	-	53.8	108.7	164.6	277.1	279.9	226.2	1,110.3																													
<b>f. Pulse (Dry Bean) Production in Open-Fields</b>																																																							
Certified Seed	ha	-	-	15	25	35	25	25	125	80	-	-	1.2	2.0	2.8	2.0	2.0	10.0	-	-	1.3	2.2	3.1	2.2	2.3	11.1	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																			
<b>g. Vegetable Production Under Cover</b>																																																							
Plastic Tunnel (250 sq m) /a	each	-	10	15	20	20	20	10	95	5,400	-	54.0	81.0	108.0	108.0	108.0	54.0	513.0	-	58.1	88.0	118.5	119.7	120.9	61.1	566.4	6.0	0.0	15.3	AGR_PRO_NRM	EQUIP&MAT	EQ_OFI_DA	BENEF (< 16% >, FT)	.MFAL (84%)	EGG_PA	NCB_PM (100%)																			
Certified Seedling (Tomato)	ha	-	0.5	0.75	1	1	1	0.75	5,784.0	-	3.9	5.9	7.8	7.8	7.8	5.9	39.2	-	4.2	6.4	8.6	8.7	8.8	6.6	43.3	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	BENEF (< 16% >, FT)	.MFAL (84%)	EGG_PA	NCB_PM (100%)																				
<b>Subtotal</b>											-	57.9	86.9	115.8	115.8	115.8	59.9	552.2	-	62.3	94.4	127.1	128.4	129.7	67.7	609.7																													
<b>h. Strawberry Production</b>																																																							
Certified Seedling (Refrigerated)	ha	-	5	5	10	10	10	10	50	8,400	-	42.0	42.0	84.0	84.0	84.0	420.0	-	45.2	45.6	92.2	93.1	94.0	95.0	465.2	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																				
Mulching (black plastic)	ha	-	5	5	10	10	10	10	50	2,880	-	14.4	14.4	28.8	28.8	28.8	144.0	-	15.5	15.6	31.6	31.9	32.2	32.6	159.5	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																				
Picking equipment	per farm	-	50	75	100	100	75	500	50	-	2.5	3.8	5.0	5.0	5.0	3.8	25.0	-	2.7	4.1	5.5	5.5	5.6	4.2	27.6	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																				
Packaging material (for on-farm enterprises) /b	amp sun	-	0.2	0.8	-	-	-	-	10,000	-	24.0	96.0	-	-	-	-	120.0	-	25.8	104.3	-	-	-	-	-	130.1	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																			
<b>Subtotal</b>											-	82.9	156.2	117.8	117.8	117.8	116.6	709.0	-	89.2	169.7	129.3	130.6	131.9	131.8	782.5																													
<b>i. Medicinal and Aromatic Plants (MAPs) Production</b>																																																							
Certified Seed (Thyme)	ha	-	-	10	10	10	10	10	50	810	-	-	8.1	8.1	8.1	8.1	8.1	40.5	-	-	8.8	8.9	9.0	9.1	9.2	44.9	6.0	0.0	15.3	AGR_PRO_NRM	GOODS_SERV_INP	EQ_OFI_DA	IFAD (84%)	.BENEF (< 16% >, FT)	EGG_PA	NCB_PM (100%)																			
Harvesting Equipment																																																							



**Table 2: Market Access Enhancement & Value Chain Development – Detailed Costs**

Göksu-Taşeli Watershed Development Project																				Parameters (in %)																	
Table 2. Market Access Enhancement and Value Chain Development																				Phy.	For.	Gross															
Detailed Costs																				Cont.	Exch.	Tax Rate															
Unit	Quantities										Base Cost (US\$ '000)										Component	Expenditure Account	Disb. Acct.	Fin. Rule	Proc. Acct.	Proc. Method											
	2016	2017	2018	2019	2020	2021	2022	Total	2016	2017	2018	2019	2020	2021	2022	Total																					
<b>I. Investment Costs</b>																																					
<b>A. Matching Grants Programme</b>																																					
1. Processing Facilities (SME or FO)	lump sum	-	0.25	0.75	-	-	-	-	1	2,000.000	-	500.0	1,500.0	-	-	-	-	2,000.0	-	507.5	1,537.8	-	-	-	-	-	2,045.3	0.0	0.0	15.3	MAR_ACC_CAP_BUILD_MRKT	GRANTS&SUBSIDIES	MG_DA	FAD ( 84% ), BENE ( < 16% > , FT	EQG_PA	NCB_PM ( 100% )	
2. Cold Storage (SME or FO)	lump sum	-	0.25	0.75	-	-	-	-	1	1,500.000	-	375.0	1,125.0	-	-	-	-	1,500.0	-	380.6	1,153.4	-	-	-	-	-	1,534.0	0.0	0.0	15.3	MAR_ACC_CAP_BUILD_MRKT	GRANTS&SUBSIDIES	MG_DA	FAD ( 84% ), BENE ( < 16% > , FT	EQG_PA	NCB_PM ( 100% )	
3. Rural Tourism /a	per district	-	4	4	4	4	4	4	24	15,000	-	60.0	60.0	60.0	60.0	60.0	60.0	360.0	-	60.9	61.5	62.1	62.7	63.4	64.0	374.7	0.0	0.0	15.3	MAR_ACC_CAP_BUILD_MRKT	GRANTS&SUBSIDIES	MG_DA	FAD ( 84% ), BENE ( < 16% > , FT	EQG_PA	NCB_PM ( 100% )		
<b>Subtotal</b>												935.0	2,685.0	60.0	60.0	60.0	3,960.0	-	949.1	2,752.7	62.1	62.7	63.4	64.0	3,954.0												
<b>B. Brand Development</b>																																					
Promotional Campaigns /b	lump sum	-	1	1	1	1	1	1	6	16,000	-	16.0	16.0	16.0	16.0	16.0	96.0	-	16.2	16.4	16.6	16.7	16.9	17.1	99.9	0.0	0.0	0.0	MAR_ACC_CAP_BUILD_MRKT	GOODS_SERV_INPUTS	CONSULTANCIES	IFAD ( 100% )	TTA_PA	CON_SVRCS_PM ( 100% )			
Festivals/Fairs	each	-	1	1	1	1	1	1	6	10,000	-	10.0	10.0	10.0	10.0	10.0	60.0	-	10.2	10.3	10.4	10.5	10.6	10.7	62.4	0.0	0.0	0.0	MAR_ACC_CAP_BUILD_MRKT	TRAINING	CONSULTANCIES	IFAD ( 100% )	TTA_PA	CON_SVRCS_PM ( 100% )			
Technical Assistance	pm	-	1	1	1	1	1	1	5	15,000	-	15.0	15.0	15.0	15.0	15.0	75.0	-	15.2	15.4	15.5	15.7	15.8	-	77.7	0.0	0.0	0.0	MAR_ACC_CAP_BUILD_MRKT	CONSULTANCIES_1	CONSULTANCIES	IFAD ( 100% )	TTA_PA	CON_SVRCS_PM ( 100% )			
Small-Scale Rural Tourism Investment Plans	each	11	-	-	-	-	-	-	11	5,000	55.0	-	-	-	-	-	55.0	55.3	-	-	-	-	-	-	55.3	0.0	0.0	0.0	MAR_ACC_CAP_BUILD_MRKT	CONSULTANCIES_1	CONSULTANCIES	IFAD ( 100% )	TTA_PA	CON_SVRCS_PM ( 100% )			
<b>Subtotal</b>											55.0	41.0	41.0	41.0	41.0	206.0	55.3	41.6	42.0	42.5	42.9	43.3	27.7	295.3													
<b>C. Capacity Building for Marketing (Downstream)</b>																																					
1. Marketing Advisory Services	lump sum	-	1	1	1	1	-	-	4	10,000	-	10.0	10.0	10.0	10.0	-	40.0	-	10.2	10.3	10.4	10.5	-	-	41.2	0.0	0.0	0.0	MAR_ACC_CAP_BUILD_MRKT	CONSULTANCIES_1	CONSULTANCIES	IFAD GRANT ( 100% )	TTA_PA	CON_SVRCS_PM ( 100% )			
2. Developing SIPs /c	each	5	-	-	-	-	-	-	5	20,000	100.0	-	-	-	-	-	100.0	100.5	-	-	-	-	-	-	100.5	0.0	0.0	0.0	MAR_ACC_CAP_BUILD_MRKT	CONSULTANCIES_1	CONSULTANCIES	MFAL ( 100% )	TTA_PA	CON_SVRCS_PM ( 100% )			
3. Training of Stakeholders	lump sum	1	1	1	1	1	1	-	6	10,000	10.0	10.0	10.0	10.0	10.0	-	60.0	10.1	10.2	10.3	10.4	10.5	10.6	-	61.8	0.0	0.0	0.0	MAR_ACC_CAP_BUILD_MRKT	TRAINING	CONSULTANCIES	IFAD ( 100% )	TTA_PA	CON_SVRCS_PM ( 100% )			
4. Exposure Visits for Stakeholders /d	lump sum	-	2	1	1	1	1	1	7	10,000	-	20.0	10.0	10.0	10.0	10.0	70.0	-	20.3	10.3	10.4	10.5	10.6	10.7	72.6	0.0	0.0	0.0	MAR_ACC_CAP_BUILD_MRKT	TRAINING	CONSULTANCIES	IFAD ( 100% )	TTA_PA	CON_SVRCS_PM ( 100% )			
5. Farmer Organisation Management Training	study	1	-	-	-	-	-	-	1	15,000	15.0	-	-	-	-	-	15.0	15.1	-	-	-	-	-	-	15.1	0.0	0.0	0.0	MAR_ACC_CAP_BUILD_MRKT	TRAINING	CONSULTANCIES	IFAD ( 100% )	TTA_PA	CON_SVRCS_PM ( 100% )			
6. Study Tours	Lump Sum	-	1	1	1	1	1	1	6	20,000	-	20.0	20.0	20.0	20.0	20.0	120.0	-	20.3	20.5	20.7	20.9	21.1	21.3	124.9	0.0	0.0	0.0	MAR_ACC_CAP_BUILD_MRKT	TRAINING	CONSULTANCIES	IFAD ( 100% )	TTA_PA	CON_SVRCS_PM ( 100% )			
<b>Subtotal</b>											125.0	60.0	50.0	50.0	50.0	40.0	30.0	405.0	125.6	60.9	51.3	51.8	52.3	42.3	32.0	416.1											
<b>D. Studies</b>																																					
1. Marketing Training Needs Assessment (TNA)	study	1	-	-	-	-	-	-	1	5,000	5.0	-	-	-	-	-	5.0	5.0	-	-	-	-	-	-	5.0	0.0	0.0	0.0	MAR_ACC_CAP_BUILD_MRKT	CONSULTANCIES_3	CONSULTANCIES	IFAD ( 100% )	TTA_PA	CON_SVRCS_PM ( 100% )			
2. Gap Analysis for Value Chains /e	study	1	-	-	-	-	-	-	1	10,000	10.0	-	-	-	-	-	10.0	10.1	-	-	-	-	-	-	10.1	0.0	0.0	0.0	MAR_ACC_CAP_BUILD_MRKT	CONSULTANCIES_3	CONSULTANCIES	IFAD ( 100% )	TTA_PA	CON_SVRCS_PM ( 100% )			
3. Diagnostic Study for Farmer Organisations (FO)	study	1	-	-	-	-	-	-	1	10,000	10.0	-	-	-	-	-	10.0	10.1	-	-	-	-	-	-	10.1	0.0	0.0	0.0	MAR_ACC_CAP_BUILD_MRKT	CONSULTANCIES_3	CONSULTANCIES	IFAD ( 100% )	TTA_PA	CON_SVRCS_PM ( 100% )			
4. Assessment for Tourism Opportunities	each	1	-	-	-	-	-	-	1	10,000	10.0	-	-	-	-	-	10.0	10.1	-	-	-	-	-	-	10.1	0.0	0.0	0.0	MAR_ACC_CAP_BUILD_MRKT	CONSULTANCIES_3	CONSULTANCIES	IFAD ( 100% )	TTA_PA	CON_SVRCS_PM ( 100% )			
<b>Subtotal</b>											35.0	-	-	-	-	-	35.0	35.2	-	-	-	-	-	-	35.2												
<b>Total Investment Costs</b>											215.0	1,036.0	2,776.0	151.0	151.0	141.0	116.0	4,586.0	216.1	1,051.6	2,846.0	156.4	157.9	148.9	123.8	4,700.6											
<b>II. Recurrent Costs</b>																																					
<b>A. Travel &amp; Other Operating Cost</b>																																					
Other Operating Cost /f	per-annum	1	1	1	1	1	1	1	7	5,000	5.0	5.0	5.0	5.0	5.0	5.0	35.0	5.0	5.1	5.1	5.2	5.2	5.3	5.3	36.2	0.0	0.0	0.0	MAR_ACC_CAP_BUILD_MRKT	OPERATING_COST	OPERATING_DA	IFAD ( 100% )	CURRENT_FDR_CONTRACT_PM ( 100% )				
<b>Total Recurrent Costs</b>											5.0	5.0	5.0	5.0	5.0	5.0	35.0	5.0	5.1	5.1	5.2	5.2	5.3	5.3	36.2												
<b>Total</b>											220.0	1,041.0	2,781.0	156.0	156.0	146.0	121.0	4,621.0	221.1	1,056.7	2,851.1	161.5	163.1	154.2	129.1	4,736.8											

/a Tour guide, accommodation, small food-based businesses, cottage industry, etc)  
 /b Printing, distribution of materials, press coverage promotion, radio/TV spots.  
 /c By PPMUs.  
 /d Including PDA staff, farmers, intermediaries.  
 /e Fruit, vegetables and livestock produce.  
 /f Office operating costs.





**Table 4: Components Project Cost Summary**

Goksu-Taseli Watershed Development Project Components Project Cost Summary	(TL Million)			(US\$ Million)			%	% Total
	Local	Foreign	Total	Local	Foreign	Total	Foreign Exchange	Base Costs
1. Agricultural Productivity and Natural Resource Management	47.06	0.04	47.10	16.51	0.01	16.53	-	71
2. Market Access Enhancement and Value Chain Development	13.17	-	13.17	4.62	-	4.62	-	20
3. Project Management Unit	5.63	-	5.63	1.97	-	1.97	-	9
<b>Total BASELINE COSTS</b>	<b>65.85</b>	<b>0.04</b>	<b>65.89</b>	<b>23.11</b>	<b>0.01</b>	<b>23.12</b>	<b>-</b>	<b>100</b>
Physical Contingencies	2.79	-	2.79	0.98	-	0.98	-	4
Price Contingencies	2.57	0.00	2.57	0.90	0.00	0.90	-	4
<b>Total PROJECT COSTS</b>	<b>71.21</b>	<b>0.04</b>	<b>71.25</b>	<b>24.99</b>	<b>0.01</b>	<b>25.00</b>	<b>-</b>	<b>108</b>

**Table 5: Expenditure Account Project Cost Summary**

Expenditure Accounts Project Cost Summary	(TL Million)			(US\$ Million)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
<b>I. Investment Costs</b>								
A. Works	6.68	-	6.68	2.35	-	2.35	-	10
B. Equipment and Materials	8.24	-	8.24	2.89	-	2.89	-	13
C. Goods, Services and Inputs	23.01	-	23.01	8.07	-	8.07	-	35
<b>D. Consultancies</b>								
1. Consultancies /a	1.00	-	1.00	0.35	-	0.35	-	2
2. Consultancies /b	0.51	-	0.51	0.18	-	0.18	-	1
3. Consultancies /c	0.21	-	0.21	0.08	-	0.08	-	-
<b>Subtotal</b>	1.73	-	1.73	0.61	-	0.61	-	3
E. Training	9.71	-	9.71	3.41	-	3.41	-	15
F. Workshop	0.40	-	0.40	0.14	-	0.14	-	1
G. Grants and Subsidies	12.28	-	12.28	4.31	-	4.31	-	19
<b>Total Investment Costs</b>	62.06	-	62.06	21.77	-	21.77	-	94
<b>II. Recurrent Costs</b>								
A. Salaries and Allowances	2.75	-	2.75	0.97	-	0.97	-	4
B. Vehicles	0.29	-	0.29	0.10	-	0.10	-	-
C. Other Operating Costs	0.76	0.04	0.80	0.27	0.01	0.28	5	1
<b>Total Recurrent Costs</b>	3.80	0.04	3.84	1.33	0.01	1.35	1	6
<b>Total BASELINE COSTS</b>	65.85	0.04	65.89	23.11	0.01	23.12	-	100
Physical Contingencies	2.79	-	2.79	0.98	-	0.98	-	4
Price Contingencies	2.57	0.00	2.57	0.90	0.00	0.90	-	4
<b>Total PROJECT COSTS</b>	71.21	0.04	71.25	24.99	0.01	25.00	-	108

\a Domestic consultancies  
\b International consultancies  
\c Studies

**Table 6: Project Components by Year – Base Costs**

**Project Components by Year – Base Costs**  
 (US\$ Million)

	Base Cost							Total
	2016	2017	2018	2019	2020	2021	2022	
1. Agricultural Productivity and Natural Resource Management	0.45	1.54	2.83	3.20	3.41	2.93	2.16	16.53
2. Market Access Enhancement and Value Chain Development	0.22	1.04	2.78	0.16	0.16	0.15	0.12	4.62
3. Project Management Unit	0.27	0.32	0.29	0.27	0.24	0.24	0.34	1.97
<b>Total BASELINE COSTS</b>	<b>0.94</b>	<b>2.90</b>	<b>5.90</b>	<b>3.63</b>	<b>3.81</b>	<b>3.31</b>	<b>2.63</b>	<b>23.12</b>
Physical Contingencies	0.02	0.09	0.17	0.19	0.20	0.17	0.13	0.98
<b>Price Contingencies</b>								
<b>Inflation</b>								
Local	0.00	0.04	0.15	0.14	0.18	0.20	0.18	0.90
Foreign	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Subtotal Inflation</b>	<b>0.00</b>	<b>0.04</b>	<b>0.15</b>	<b>0.14</b>	<b>0.18</b>	<b>0.20</b>	<b>0.18</b>	<b>0.90</b>
Devaluation	-	-	-	-	-	-	-	-
Subtotal Price Contingencies	0.00	0.04	0.15	0.14	0.18	0.20	0.18	0.90
<b>Total PROJECT COSTS</b>	<b>0.97</b>	<b>3.03</b>	<b>6.22</b>	<b>3.96</b>	<b>4.19</b>	<b>3.68</b>	<b>2.94</b>	<b>25.00</b>
Taxes	0.02	0.34	0.83	0.49	0.52	0.44	0.32	2.97
Foreign Exchange	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01



**Table 7: Expenditure Account by Years**

Goksu-Taseli Watershed Development Project  
**Expenditure Accounts by Years -- Base Costs**  
(US\$ Million)

	Base Cost							Foreign Exchange		
	2016	2017	2018	2019	2020	2021	2022	Total	%	Amount
<b>I. Investment Costs</b>										
A. Works	-	0.29	0.45	0.47	0.52	0.45	0.17	2.35	-	-
B. Equipment and Materials	0.02	0.35	0.51	0.49	0.54	0.53	0.45	2.89	-	-
C. Goods, Services and Inputs	-	0.48	1.43	1.79	1.85	1.44	1.09	8.07	-	-
<b>D. Consultancies</b>										
1. Consultancies /a	0.16	0.05	0.04	0.05	0.04	0.03	-	0.35	-	-
2. Consultancies /b	0.03	-	-	0.04	-	-	0.12	0.18	-	-
3. Consultancies /c	0.08	-	-	-	-	-	-	0.08	-	-
<b>Subtotal</b>	<b>0.26</b>	<b>0.05</b>	<b>0.04</b>	<b>0.08</b>	<b>0.04</b>	<b>0.03</b>	<b>0.12</b>	<b>0.61</b>	<b>-</b>	<b>-</b>
E. Training	0.38	0.53	0.50	0.46	0.52	0.52	0.49	3.41	-	-
F. Workshop	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.14	-	-
G. Grants and Subsidies	-	0.97	2.78	0.15	0.15	0.15	0.12	4.31	-	-
<b>Total Investment Costs</b>	<b>0.70</b>	<b>2.68</b>	<b>5.72</b>	<b>3.46</b>	<b>3.63</b>	<b>3.14</b>	<b>2.45</b>	<b>21.77</b>	<b>-</b>	<b>-</b>
<b>II. Recurrent Costs</b>										
A. Salaries and Allowances	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.97	-	-
B. Vehicles	0.06	0.04	-	-	-	-	-	0.10	-	-
C. Other Operating Costs	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.28	5.0	0.01
<b>Total Recurrent Costs</b>	<b>0.24</b>	<b>0.22</b>	<b>0.18</b>	<b>0.18</b>	<b>0.18</b>	<b>0.18</b>	<b>0.18</b>	<b>1.35</b>	<b>1.0</b>	<b>0.01</b>
<b>Total BASELINE COSTS</b>	<b>0.94</b>	<b>2.90</b>	<b>5.90</b>	<b>3.63</b>	<b>3.81</b>	<b>3.31</b>	<b>2.63</b>	<b>23.12</b>	<b>0.1</b>	<b>0.01</b>
Physical Contingencies	0.02	0.09	0.17	0.19	0.20	0.17	0.13	0.98	-	-
<b>Price Contingencies</b>										
<b>Inflation</b>										
Local	0.00	0.04	0.15	0.14	0.18	0.20	0.18	0.90	-	-
Foreign	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.0	0.00
<b>Subtotal Inflation</b>	<b>0.00</b>	<b>0.04</b>	<b>0.15</b>	<b>0.14</b>	<b>0.18</b>	<b>0.20</b>	<b>0.18</b>	<b>0.90</b>	<b>0.1</b>	<b>0.00</b>
Devaluation	-	-	-	-	-	-	-	-	-	-
Subtotal Price Contingencies	0.00	0.04	0.15	0.14	0.18	0.20	0.18	0.90	0.1	0.00
<b>Total PROJECT COSTS</b>	<b>0.97</b>	<b>3.03</b>	<b>6.22</b>	<b>3.96</b>	<b>4.19</b>	<b>3.68</b>	<b>2.94</b>	<b>25.00</b>	<b>0.1</b>	<b>0.01</b>
Taxes	0.02	0.34	0.83	0.49	0.52	0.44	0.32	2.97	-	-
Foreign Exchange	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	-	-

\a Domestic consultancies  
\b International consultancies  
\c Studies



## Appendix 10: Economic and Financial Analysis

### Introduction

1. This Annex presents the financial and economic analysis. The financial analysis aims at demonstrating that on-farm and off-farm income generating activities, as proposed in the Project (referred to hereafter as GTWDP), are profitable and therefore sustainable. On the flip side, the economic analysis aims to demonstrate that, from an economic perspective, the project as a whole is viable, taking into account, as much as possible, all quantitative and non-quantitative benefits in situations with and without Project.

### Data Sources and General Assumptions

2. The data used in this analysis have been collected from various sources, including and in particular the General Directorate of Agrarian Reform (GDAR) and the Provincial Directorates of Agriculture of the Ministry of Food, Agriculture and Livestock (MFAL) in Konya and Karaman, the Ministry of Forestry and Water Affairs (MFWA) and Provincial Directorates in Konya and Karaman, the Agriculture and Rural Development Support Institution (TKDK), local agricultural practitioners and missions' estimates. Additional data were collected through interviews during field visits.

3. Prices: Input and output prices are also in constant terms of 2015. Financial prices were collected during the field visit in January 2015 and their economic values were calculated by using a standard conversion factor (SCF) of 0.7 for labour, given the high level of under-employment and unemployment in the region. A SCF very close to 1 for all other parts was used to reflect the openness of the Turkish economy, given that - although the sector receives government subsidies - the government does not supply nor does it determine the price of goods. (The recommendations of the ARIP (2001-2008) resulted in the testing of a direct income support mechanism and helped shift subsidies from price to input-based subsidies. Goods are purchased by the farmers directly from the market at market price. Hence no market distortion.) The prices used in the financial analysis represent estimates of the average seasonal prices of commodities, which are within the same range in both provinces.

### Quantifiable Benefits

4. The two main areas of investment by the Project are: (i) Improved Agricultural Productivity and Natural Resource Management; and (ii) Market Access Enhancement and Value Chain Development.

5. The main quantifiable benefits expected from improved agricultural productivity and natural resource rehabilitation measures would comprise of the following elements:

(i) Increased agricultural and off-farm production; resulting in higher incomes.

(ii) Increased irrigated area through the development of improved water resources management; resulting in increased production and a move to higher value crops (in mountainous areas).

6. Benefits from investments in market access enhancement and value chain development would comprise of the following:

(i) Production guided by value chain priorities with respect to farmer and farmer organisations.

(ii) Greater variety of income and higher value-added products sold at consumer markets by farmers and farmer organisations.

(iii) Increased income from short-term employment opportunities for local villagers.

(iv) Value chain integration, with backward and forward market linkages, by target area beneficiaries both within and outside of the target area.

## Financial Analysis

7. Eleven illustrative crop and activity budgets including barley, cherry, chickpea, dry bean, grape, lentil, strawberry, thyme, tomato (Greenhouse - GH), vetch and wheat were prepared to show the impact of investments in 'rainfed-irrigated', 'only rainfed' and 'only irrigated' areas on agricultural production. Summary of the crop budgets and underlying technical assumptions on which these models are based, are presented below. These budgets indicate that yields are expected to increase by 10% for major crops with improved irrigation compared to the "without" project situation due to increased and more secure water availability.

8. Six household models at the farm level were developed to illustrate the impact of activities, two in each of the above three categories (rainfed, rainfed-irrigated and only irrigated). These models try to capture the multitude of complex coping strategies developed by households living in the area on mountainous terrain, over several generations. The introduction of 'new technologies' would increase their productivity, update their skills set to manage with more modern farming techniques and to compete with the emergence of larger farm holdings in Turkey.

9. Four enterprise models were developed that focused on the collective organisation of sorting, grading, drying and packing produce at harvest time - to reflect elements of a value chain. Two of the models focused on existing crops - cherry and grapes (fresh and dried), while two others focused on relatively new activities to the area - strawberry and medicinal & aromatic plants (MAPs), in this case thyme. A discount rate of 10% was used on all models to reflect the opportunity cost of capital.

### Primary Production Models

10. **Increased barley production.** Barley, as well as being a grain, is grown as a fodder crop in the project area and fed to small headed ruminants, such as goats and sheep. In the challenging mountainous and rainfed environment of the project area, barley is an important crop; hence it's choice as one of the models. Starting with the introduction of certified seed, the project intends to increase output per hectare by a conservative 20% with additional improvements in seed bed preparation, optimum seeding time, weed control and appropriate seeding rate. The incremental net benefit of the project intervention equates to TL 872 and TL 385 per hectare on irrigated and dry land, respectively.

11. **Increased cherry production (existing and new).** According to the UN FAO, Turkey is the largest producer of cherry in the world; more than Spain, Italy and Iran combined and bigger than the USA. The preference is for the sweet variety and sold mainly fresh. The same applies in the project area. The land however could be better utilized through dwarf and semi-dwarf varieties. To address this, the project intends to assist with the introduction of certified varieties in new and existing orchards. The addition of drip irrigation will also add to the productivity of the area - which competes with low, flat lands - by a further 10%. The advantage of the project area is its altitude; the fruit ripens later and therefore fetches a higher price than fruit from low lands. The incremental net benefit per hectare of the project intervention is TL 2,381.

12. **Chickpea production.** After wheat, chickpea is one of the most commonly sown crops in the project area. As a nitrate fixing crop, chickpea serves to increase the green coverage of fallow land, replenish soil nutrients and reduce the usage of fertiliser - important given that a majority of land is rainfed. An anthracnose-tolerant certified seed variety, combined with appropriate seeding time and pest management aims to improve output from within the project area. The net incremental benefit per hectare of project interventions is TL 769.

13. **Dry bean production.** Dry bean potentially is an important cash crop that is not widely sown in the project area, even though the climate is conducive to its growth. It is another legume that would serve the environmental purposes of the Project. The incremental net benefit of the project interventions is TL 1,643 per hectare.

14. **Grape models: new and existing vineyards.** The tradition of dried grape (raisin) production (and consumption) is strong in the project area. Local varieties that have difficulty producing enough

to match the demands of the markets already exist. These strands along with phylloxera-resistant rootstock would be grafted onto existing stock to expedite the change in variety. The incremental net benefit of the project interventions is projected at TL per hectare.

15. **Strawberry Production.** Strawberry has the potential to become a major cash crop in the project area. The quick transition, in comparison to lengthy maturity by fruit trees, makes this crop compelling to many local farmers. The main issue is access to a reliable source of water, which the project aims to address, hand-in-hand with support to transition to strawberries. Under such a scenario strawberry has the potential to increase its coverage in a very short space of time. Coupled with the comparatively small plots (0.3 hectares) of necessary land, we may see a quick shift in patterns among certain households and a diversification of incomes. The net incremental benefit of the project intervention per hectare is TL 742.

16. **Thyme.** As one of the many potential medicinal aromatic plants (MAPs) found in Turkey, thyme is possibly the most common herb used in Turkish cuisine. Thyme also serves in this analysis as an illustrative example of MAPs and what the project can do to assist in its cultivation, since it is now only gathered through foraging in the mountains. Should its collection increase among villagers as an alternative income, the subject of sustainability may become an issue. The project aims to tackle this potential risk by supporting its increased cultivation. Since the activity is new, the net incremental benefit of project intervention per hectare is TL 17,820.

17. **Tomato (vegetable) production under plastic tunnels.** This model presents the investments required for vegetable production under semi-permanent or plastic tunnel greenhouses. Due to the location of the Project, vegetable production under plastic tunnels is difficult to heat in the winter months. Geothermal spring water as a heating option is difficult because of the high altitude and the need to dig down deep. In a few select areas vegetable production under cover will be supported with 200 plastic tunnels measuring 250m<sup>2</sup> in size. The net incremental benefit of project interventions per hectare is TL 2,261.

18. **Vetch Production (Hungarian). Often grown as a fodder crop,** vetch is a winter hardy annual leguminous cover crop that also protects soil from erosion, helps soil tilth, and provides weed control during its vigorous growth in the spring and when left as a dead mulch at the surface. The net incremental benefits of project interventions per hectare are TL 110 and TL 350 for dry and irrigated land, respectively.

19. **Wheat Production.** Grown mainly in rainfed areas, with some limited cultivation in irrigated areas, wheat acts as a proxy for cereal production, given its biggest share of total area sown. This model illustrates the impact of the adoption of better agronomic practices on the yields as well as on the hay and grain quality. Incremental revenue is derived from improved seedbed preparation, improved timing of planting, and quality/certified seeds of higher yielding varieties. The net incremental benefit per hectare is TL 704 and TL 1,109 for dry and irrigated land, respectively.

20. **Goat - small headed animal husbandry.** Given the mountainous nature of the terrain in the Project area, small headed ruminants are far more present than large headed ones. In fact, it was estimated that the total number of goats outnumbered the total number of sheep by a factor of 2 to 1 (140,000 vs. 70,000). In this context, goat was taken as an important side activity within the entirety of the farming system. A model to assess the benefits and costs at the activity level was attempted, however since no investments were foreseen at this level the internal rate of return was not calculable, nor was it included in the household model since investments in troughs were made at the project level.

21. In any case, the Project can anticipate an increase in milk yields of 10% as a result of improvements in the rangeland regarding the introduction of solar pumps and milking machines and an increase in watering troughs. Improvements in on-farm investments would generate higher yields in straw and kernels from increases in wheat and barley production, and better quality forage from Hungarian vetch, albeit somewhat limited since goats are rangeland-based.

22. Financial results per crops, per hectare are summarised in the table 15 below.

**Table 15: Summary Yield, Financial Crop Budgets and Incremental Net Benefit**

Crops	Yield (kg/ha)		Price (TL/kg)		Income (After Labour Cost) (TL/ha)		Incremental (%)
	W/O	W	W/O	W	W/O	W	
Wheat (dry)	2200	3000	0.88	0.88	539	1243	131%
Wheat (by product)	1540	2100	0.22	0.22			
Wheat (irrigated)	2200	4500	0.88	0.88	547	1656	203%
Wheat (by product)	1540	2100	0.22	0.22			
Barley (dry)	2300	2800	0.70	0.70	435	820	89%
Barley (by product)	1610	1770	0.22	0.22			
Barley (irrigated)	2500	4000	0.70	0.70	297	1169	294%
Barley (by product)	2800	3080	0.22	0.22			
Dry Bean	3000	3600	3.00	3.00	6484	8127	25%
Dry Bean (by product)	2100	2310	0.25	0.25			
Chickpea	1100	1400	3.40	3.40	2169	2933	35%
Chickpea (by product)	2100	2310	0.25	0.25			
Lentil	800	880	3.00	3.00	740	993	34%
Lentil (by product)	560	610	0.25	0.25			
Vetch (dry)	5500	5800	0.35	0.35	247	357	45%
Vetch (irrigated)	5500	6500	0.35	0.35	195	545	179%
Cherry	12500	13750	2.50	2.50	19861	22242	12%
Grape (dry)	5000	6000	1.20	1.20	340	740	118%
Grape (irrigated)	7500	8500	1.20	1.20	1160	1902	64%
Strawberry	0	35000	3.00	3.00	0	69900	
MAPs	0	4000	6.00	6.00	0	17820	
Tomato	0	8040	0.55	0.55	0	2261	

23. **Farm Level Analysis.** Six models were developed to illustrate the impact of project interventions on a mix of rainfed-irrigated, only rainfed and only irrigated areas at the household and/or farm level.

24. **Rainfed and Irrigated Systems: Household Model 1.** Wheat (dry), dry bean (irrigated) and cherry (irrigated) form the basis of the farm model. Improvements in the availability of **secure** on farm irrigation through drip irrigation see a shift in the cropping pattern away from dry wheat production towards irrigated dry bean. With certified varieties of cherry and fencing to add, the gross value of production increases TL 14,684, from TL 65,912 for the without project situation to TL 80,596 at full development.

25. **Rainfed and Irrigated Systems: Household Model 2.** With little room for maneuver within rainfed areas the subtle shift of less dry wheat production towards small plots of irrigated strawberry production offers positive developments even if on only 0.2 hectares of land. Certified cherry varieties, improved new wheat variety certified seed, better seed bed preparation, optimum seeding time, weed control and appropriate seeding rate all contribute to improved production figures. The gross value of production increases TL 22,729, from TL 9,300 to TL 32,470.

26. **Only Rainfed: Household Model 3.** Wheat, barley and chickpea form the cornerstone of the first of two only rainfed household models. A shift away from barley toward chickpea sees the gross value of production increase TL 4,086, from TL 7,496 for the without project situation to TL 11,582 at full development. Detailed tables are available in the appendix.

27. **Only Rainfed: Household Model 4.** Dry wheat, dry grapes and MAPs (medicinal and aromatic plants) form the basis of this rainfed only household model. The shift in cropping pattern is away from dry wheat and towards MAPs (thyme) of some 0.1 hectares of land. The combination of changes in farming techniques and new and alternative income streams sees the gross value of production increase TL 3,973, from TL 19,137 for the without project situation to TL 23,110 at full development. Thyme would be cultivated rather than foraged to ensure sustainable sourcing as a crop.

28. **Only Irrigated: Household Model 5.** The onset of improved in-field irrigation systems for wheat and cherry are supported by the introduction of tomato production under cover in 250 m<sup>2</sup> solar tunnels. The net result is an increase in gross production of TL 10,622. This figure reflects the difficulty in increasing the cropping intensity due to the heavy winter months. Detailed information is available in the appendix.

29. **Only Irrigated: Household Model 6.** Grape, barley and strawberry form the basis of this household model. Strawberry as a standalone activity offers the great amount of earning potential, if

introduced to the area on a wider basis, as a bolt on activity. Eventually, it is assumed that new strawberry farmers would increase their coverage in strawberry production. For the purposes of the analysis the area sown is restricted to 0.2 hectares per household. The size of support that the project intends to extend to interested farmers.

30. Financial results at the farm level are summarized below.

**Table 16: Estimated Farm level and Total Net Income at Project Level**

Cropping Pattern	Area sown (ha) <sup>1</sup>		Income After Labour Costs (TL/Farm)		Net income (TL/farm)	Incremental (%)
	W/O Project	W Project	W/O Project	W Project		
<b>Rainfed &amp; Irrigated</b>						
<b>FM M1</b>						
Wheat (dry)	1.5	0.7	809	870	62	8%
Cherry (irrigated)	2.0	2.0	39,722	44,484	4,762	12%
Dry beans (irrigated)	0.0	0.8	0	6,502	6,502	N/A
Goats	1	1	0	2,700	2,700	N/A
<b>Total</b>	<b>3.5</b>	<b>3.5</b>	<b>40,531</b>	<b>54,556</b>	<b>14,025</b>	<b>35%</b>
<b>FM M2</b>						
Wheat (dry)	1.5	1.3	809	1,616	807	100%
Vineyard (irrigated)	0.5	0.5	580	951	371	64%
Vetch (dry)	1.5	1.5	371	536	165	45%
Goats	1	1	0	2,700	2,700	N/A
Strawberry (irrig.)	0	0.2	0	13,980	13,980	N/A
<b>Total</b>	<b>3.5</b>	<b>3.5</b>	<b>1,759</b>	<b>19,782</b>	<b>18,023</b>	<b>1025%</b>
<b>Only Rainfed</b>						
<b>FM M3</b>						
Wheat	2	2	1,078	2,486	1,408	131%
Chickpeas	0	1	0	2,933	2,933	N/A
Barley	1.5	0.5	653	410	-243	-37%
Goats	1	1	0	2,700	2,700	N/A
<b>Total</b>	<b>3.5</b>	<b>3.5</b>	<b>1,731</b>	<b>8,529</b>	<b>6,799</b>	<b>393%</b>
<b>FM M4</b>						
Vineyard	3	3	1,020	2,220	1,200	118%
Wheat	0.5	0.4	270	497	228	84%
MAPs	0	0.1	0	1,782	1,782	N/A
<b>Total</b>	<b>3.5</b>	<b>3.5</b>	<b>1,290</b>	<b>4,499</b>	<b>3,210</b>	<b>249%</b>
<b>Only Irrigated</b>						
<b>FM M5</b>						
Cherry	2	2	39,722	44,484	4,762	12%
Wheat	1.5	1.475	821	2,443	1,622	198%
Vegetable <sup>2</sup>	0	0.025	0	57	57	N/A
<b>Total</b>	<b>3.5</b>	<b>3.5</b>	<b>40,543</b>	<b>46,983</b>	<b>6,441</b>	<b>16%</b>
<b>FM M6</b>						
Vineyard	2	2	2,320	3,804	1,484	64%
Strawberry	0	0.3	0	20,970	20,970	N/A
Barley	1.5	1.2	446	1,403	957	215%
Goats	1	1	0	2,700	2,700	N/A
<b>Total</b>	<b>3.5</b>	<b>3.5</b>	<b>2,766</b>	<b>28,877</b>	<b>26,111</b>	<b>944%</b>
		<b>TL</b>	<b>88,618</b>	<b>163,226</b>	<b>74,609</b>	<b>261,130,538</b>

<sup>1</sup> In the case of goats it is per herd.

<sup>2</sup> Tomato in greenhouse

<sup>3</sup> Average farm size assumed at 3.5 ha with 3,500 farms per model or a total of 21,000 households.

## Enterprise Level Analysis

31. **Cherry Grading, Sorting and Packing Centre.** This model illustrates an investment of USD 346,000 (or TL 865,000 equivalent) for the purchase of a portable hydro cooler, sorting and packing line(s) with two-three ton capacity per hour in 500g punnets, free roller conveyor, a forklift, and conversion of an existing building. This sort of investment is suitable for a group of farmers or small-medium enterprise (SME). Total amount of (theoretical) production per season stands at 1,250 tons over a 10 week period. An operating margin of USD 0.2 per kilo is envisaged. Net Present Value stands at USD 1,097,427, with an internal rate of return (IRR) of 58%. The Benefit Cost Ratio (BCR) is 4.49. A total of 24 seasonal jobs are anticipated as a result of the activity.

32. **Raisins (Drying), Sorting and Packing Centre(s).** This model proposes the collection of raisins from villagers to a central processing unit or centre that assists in the sorting and packing of dried grapes. **When** villagers so wish, the centre will also dry the grapes for a fee. A total of 3,500 tons is envisaged for processing by such centres; half would be sold in bulk and the remainder in small retail bags. Both small and large size investment are anticipated, with 500 ton and 1,000 ton capacities. The investment level is anticipated at USD 22,100 and USD 67,500 for small and large investments, respectively. Net Present Value is projected at USD 27,333 and USD 56,545, with an IRR of 30% and 25%, respectively for small and large centres. A total of 12-24 seasonal jobs are anticipated as a result of the investment, including packers and drivers. The BCR is 1.92 and 2.36 for small and large investments. The total number of centres would be determined as per the size of interest in a given area within the project region.

33. **Strawberry Sorting and Packing Centre.** Many farmers expressed a desire to grow strawberries in the Project area during field visits. The main bottleneck expressed was a regular source of water. The Project therefore anticipates providing drip irrigation to approximately 500 farmers on 0.2 **hectares** of land (each) on a total of 100 hectares over the course of the project. Such a level of intervention foresees approximately 3,500 tons of strawberry production at full development. Under half of this would be processed through a central processing centre or 1,500 tons per season. Such a centre would be a good opportunity to provide female and youth employment in the area. In addition to the 500 target farmers, the investment would create over 50 seasonal jobs for packers and drivers within the operation, plus one supervisory role. The project foresees an IRR of 30%, an NPV of USD 395,634 and a BCR of 2.38.

34. **Medicinal and Aromatic Plants.** As a new venture the potential for growth is high, yet the importance to manage growth, hand-in-hand with production of plants, to remain sustainable is also high. This investment would therefore also be an important means in measuring the output from the area, assuming that the services provided are of value to village farmers. The start-up costs to the farmer are low given the low cost of seed needed to participate. Access to market through an organized sales channel would be an important incentive to the farmer to participate in the provision of raw material (produce) to the centre. Within the Project it is the only model that focuses on non-wood, forest products. A high mark-up at the retail end is envisaged. A total of 40 tons processing per season is envisaged at full development. A total of approximately 12 seasonal jobs are anticipated as a result of the investment, including packers and drivers. The IRR is 22%, NPV stands at USD 395,634 and the BCR is 2.38.

35. **Cold Storage Centre.** Given the potential growth in fresh fruit output as a consequence of Project interventions, the Project will make an assessment of existing cold storage facilities in the area that are either dormant or active. Capacity utilization, poor location, management and operations were often cited as some of the reasons for closure or near closure by past and existing facilities.

36. Depending on the situation analysis, the Project may opt to support the development of an existing establishment or look to invest in a new cold storage centre. The main operating cost associated with such a centre is electricity. Optimisation of operation and use of electricity would be conducted at existing site(s) that would in turn help determine their utilization by the Project, before the onset of investment in a new site. A new site might involve up to 10 cold rooms (approx. 15m x



15m) with capacity for a total of 3,000 tons of fruit per year. The total investment cost could be as high as USD 1.4 million, of which the Project could support up to USD 1 million.

37. Financial returns at the household and enterprise levels are summarized in Table 17, below.

**Table 17: Summary Table of Financial Returns at the Household and Enterprise Levels**

	Cropping Intensity	Without Project	With Project	Incremental Net Returns	% Net Returns
<b>Farm Model 1 : Rainfed &amp; Irrigated</b>	100%	TL	TL		
Gross value of production		65912	80596	14684	22%
Outflows		25382	29234	3852	15%
Cash flow before financing		40530	51362	10832	27%
<b>NPV=16,081.18</b>					
<b>Farm Model 2 : Rainfed &amp; Irrigated</b>	100%				
Gross value of production		9300	32470	23170	249%
Outflows		8151	16021	7870	97%
Cash flow before financing		1149	16449	15300	1332%
<b>NPV=54,056.61</b>					
<b>Farm Model 3 : Only Rainfed</b>	100%				
Gross value of production		7496	11582	4086	55%
Outflows		5766	5947	181	3%
Cash flow before financing		1730	5636	3906	226%
<b>NPV=12,413.627</b>					
<b>Farm Model 4 : Only Rainfed</b>	100%				
Gross value of production		19137	23110	3973	21%
Outflows		19048	20693	1645	9%
Cash flow before financing		89	2417	2328	2616%
<b>NPV=10,098.94</b>					
<b>Farm Model 5 : Only Irrigated</b>	100%				
Gross value of production		65912	76525	10613	16%
Outflows		26657	32193	5536	21%
Cash flow before financing		39255	49332	10077	26%
<b>NPV=15,690.70</b>					
<b>Enterprise Model 1: Cherry</b>					
Internal rate of Return	-	-	58%	-	-
Benefit Cost Ratio	-	-	4.49	-	-
<b>NPV= 2,743,567.5</b>	-	-		-	-
<b>Enterprise Model 2a: Raisins (Large)</b>					
Internal rate of Return	-	-	25%	-	-
Benefit Cost Ratio	-	-	1.92	-	-
<b>NPV= 141,362.5</b>	-	-		-	-
<b>Enterprise Model 2b: Raisins (Small)</b>					
Internal rate of Return	-	-	30%	-	-
Benefit Cost Ratio	-	-	2.36	-	-
<b>NPV= 68,332.5</b>	-	-		-	-
<b>Enterprise Model 3: Strawberry</b>					
Internal rate of Return	-	-	30%	-	-
Benefit Cost Ratio	-	-	2.38	-	-
<b>NPV= 989,085</b>	-	-		-	-
<b>Enterprise Model 4: MAPs</b>					
Internal rate of Return	-	-	22%	-	-
Benefit Cost Ratio	-	-	1.76	-	-
<b>NPV= 357,195</b>	-	-		-	-

## Economic Analysis

38. **Benefits Stream.** The analysis identifies all the possible quantifiable incremental benefits generated by the GTWDP's implementation. The benefits stream corresponds to: (i) the farmers' benefits analysed in the financial analysis – i.e. increased agricultural production in the upstream as well as in the downstream area; The illustrative financial models described previously have been used as a basis for the calculation of the overall (economic) benefit stream, after conversion of the financial prices into economic values.

39. For the purpose of this analysis, the benefits derived from 212 villages have been aggregated and treated as a whole. The numbers of physical activities (properly phased in time) were multiplied by their respective net economic returns per unit as calculated in the activity models and crop budgets.

40. **Cost Stream.** In order to estimate the Project's economic viability, in terms of Economic Internal Rate of Return (EIRR), the cash flow calculated includes the Project base costs (as extracted from the COSTAB tables) with their physical contingencies but without taxes and price contingencies (therefore in constant TL). These costs include all investment and recurrent costs for components 1 and 2, mainly for operation and maintenance. All the investment, replacement and recurrent costs related to the activity and crop models are already taken into account in the calculation of the models' profit margins for each crop.

41. **Programme Level Analysis.** For the purpose of the analysis, an opportunity cost of capital of 10 percent is taken for the calculation of NPV, based on: (i) Average 10 year Turkish Government bond yield of 8.9% (April 2015); (ii) Lira deposit rate of 10% (April 2015); and (iii) Interest rate spread in Turkey of 9.8% (April 2015). Overall project analysis suggests an EIRR of 17% over twenty years. Gross value of production increases approximately 50% from the without project situation, while outflows a mere 30% or so, including labour.

42. **Sensitivity Analysis.** The sensitivity analysis assessed the effect of the main risks for the Project and the adverse situations that would arise and have a negative impact on the Project in terms of benefits and costs and various lags in time.

43. Sensitivity analysis shows that a decrease in benefits by 20% and an increase in costs by 20% are the most adverse scenarios. A delay of no more than two years in the realization of benefits, combined with a decrease in benefits by 20% is equally adverse. The EIRR drop below to 4% and 10% respectively. Despite the drop in EIRR the probability of such an occurrence is rather low at 6.25 percent. In fact a more conservative approach to yields could be adopted which would bring down the EIRR.

**Table 18: Sensitivity Summary**

	EIRR	EIRR
1. Base case	17%	4. Decrease in benefits by 10%
2. Costs overrun by 10%	14%	5. Decrease in benefits by 20%
3. Cost overrun by 20%	11%	6. Benefits delayed by two years
		7. Both 3 and 5 occur
		13%
		10%
		10%
		4%

### Risk Linked Sensitivity Analysis Matrix

%	BENEFIT				
COST	-20	-10	0	+10	+20
-20	17%	21%	25%	29%	33%
-10	13%	17%	23%	24%	28%
0	10% <sup>5</sup>	13% <sup>4</sup>	17% <sup>1</sup>	20%	23%
+10	13%	10% <sup>6</sup>	14% <sup>2</sup>	17%	20%
+20	4% <sup>7</sup>	8%	11% <sup>3</sup>	14%	17%

\* Note: numbering as above.

### **Non Quantifiable Benefits**

44. In addition to the quantified benefits described above, the GTWDP is expected to generate a number of benefits that would be extremely difficult to evaluate in monetary terms. The loss of soil, soil erosion, flooding and damage by natural disasters were not quantifiable by the field team during the mission. Reliable data and the issue of negative accounting were major issues in trying to establish a method for their measurement. Estimation of the net benefits from natural resource rehabilitation and erosion control measures, intensification and diversification of farming systems remain difficult to quantify.

## Appendix 11: Draft project implementation manual

### Introduction

#### Part A Project framework and administration

Duties and responsibilities of General Directorate of Agrarian Reform (GDAR)

Duties and responsibilities of the CPMU

Staffing arrangements

ToRs for seconded Staff

ToRs for contacted Staff

PPMU

Staffing arrangements

ToRs for seconded Staff

ToRs for contacted Staff

FSTs

ToRs for seconded staff

ToRs for contacted staff

#### Part B Marketing Advisory Services

Responsibilities

ToRs for key staff

Procurement arrangements

Performance monitoring

#### Part C Implementation Guidelines and Procedures

##### I. Financing Project Expenditures

a. Project Costs and Financing

b. Types of Accounts

c. Flow of Funds

d. IFAD Disbursement

e. Withdrawal Applications

f. Procurement Guidelines

g. Audit Procedures

h. Financial Statements

i. Project Completion

##### II. Annual Work Plan and Budgets

##### III. Guidelines for Competitive Grants Program

##### III. Detailed Activities and Implementation Procedures by Component

###### Component 1. Improved Agricultural Productivity and Natural Resource Management

a. Detailed Description of Activities

b. Implementation Arrangements for the Component (including coordination arrangements with Regional Directorate of Forestry/MFWA)

c. Procurement Procedures

d. Beneficiary Targeting and Mainstreaming

###### Component 2. Market Access Enhancement

a. Detailed Description of Activities

b. Implementation Arrangements for the Component

c. Procurement Procedures

d. Contacting and Recruitment of local service providers (Business Development Services)

e. Beneficiary Targeting and Mainstreaming

## **Part C Reporting, Monitoring, and Evaluation**

- I. Introduction
- II. Progress Reporting
- III. Monitoring and Evaluation
- IV: Guidelines for linking to TARBIL (of MFAL)
- V. Monitoring Plan

## **Part D: Supervision**

### **Tables**

- Table 1. Financing Plan by Components
- Table 2. Financing Plan by Expenditures Accounts
- Table 3. Schedule II of Loan Agreement
- Table 4. Planning and Implementation Cycle
- Table 5. Criteria and Rating Scale for selection of Investments' menu for Component 1 (CGS)
- Table 6. Criteria and Rating Scale for selection of Investments for Component 2 (CGS)
- Table 7. Application Forms for Competitive Grants Program
- Table 8. Criteria and Rating Scale for Proposals for Village Infrastructure Investment
- Table 9. Capacity building and training activities and program under Component 1
- Table 10. Capacity building and training activities and program under Component 2.
- Table 11. Capacity building and training activities and program under Component 3
- Table 12. RIMs indicators-TARBIL correlation

### **Figures**

- Figure 1. Project Organization Chart
- Figure 2. Flow of Funds

### **Annexes**

- Annex 1. Checklist for Withdrawal Application
- Annex 2. Format for Financial Statements
- Annex 3. Format for Annual Work Plan and Budgets (AWPBs)
- Annex 4. MGP Co-financing Agreements with CPMU (CPMU/Individual Beneficiaries)
- Annex 6. MGP Co-financing Agreement (CPMU/Enterprise Investments)
- Annex 7. Logical Framework



## Appendix 12: Compliance with IFAD policies

### Overview

1. The overarching policy document guiding the design was the International Fund for Agriculture Development's (IFAD) Strategic Framework (2011-2015). The design of the GTWDP project is also aligned with other relevant IFAD strategies and policies, including:

- Targeting Policy – Reaching the Poor (2010);
- Gender Strategy;
- Engagement with Middle-Income Countries (MICs) (2011);
- Climate Change Strategy (2010);
- Environment and Natural Resource Management Policy (2011);
- Policy on Supervision and Implementation Support; and
- Environmental and Social Assessment Procedures.

2. Additionally, the Technical Note on Matching Grants and the Private Sector Development and Partnership Strategy (3Ps) have been utilized to ensure that the GTWDP puts to best use the financial, technical and knowledge products that IFAD has available. The project would support investments to improve the quality and quantity of the upstream primary products and the semi-commercial poor farmers engaged in their production by making use of the Matching Grant Program. The MGP is planned to simultaneously or in an intricately woven manner also support the upstream investments. These include value-adding steps such as drying, packaging, cooling, branding, while also assisting in developing the market linkages for these through awareness and capacity building programs for all stakeholders.

3. These rural-based semi-commercial men and women poor farmers would be trained to make educated decisions by adopting the fundamentals of farming-as-a-business through extensive training by the MFAL. The Project would promote the formation of new or the revitalization of old voluntary farmers' organizations in order to benefit from the bargaining power inherent in larger volumes of products taken to markets, thus creating linkages between small farmers and private markets or intermediaries.

4. The newly introduced 4Ps approach would be considered during implementation, on a pilot basis. If successful it would be scaled up at Phase II.

5. The design of the GTWDP is also fully aligned the IFAD Environment and Natural Resource Management Policy that guides "resilient livelihoods through the sustainable use of natural assets". IFAD's stress on targeting is addressed by ensuring that poor rural people who have the capacity to take advantage of the economic opportunities provided include women and unemployed youth. The Project area does not have any landless farmers.

6. Through the GTWDP, the following would be promoted:

- Scaled-up investment in multiple-benefit approaches for sustainable agricultural intensification;
- Recognition and greater awareness of the economic, social and cultural value of natural assets;
- 'Climate-smart' approaches to rural development;
- Greater attention to risk and resilience in order to manage environment and natural resource related shocks;
- Engagement in value chains to drive green growth;
- Improved governance of natural assets for poor rural people by strengthening community-led empowerment
- Livelihood diversification to reduce vulnerability and build resilience for sustainable natural resource management;
- Equality and empowerment for women and indigenous peoples in managing natural resources; and,

- Environmental commitment through changing its own behavior.

7. Targeting. In order to ensure Project benefits reach IFAD's target group, target groups have been defined, a targeting strategy developed and means of operationalizing the strategy integration into Project design and implementation modalities have been identified. The latter includes geographic targeting of poor regions and districts; self-targeting as related to geographic targeting for most of the subsectors of GTWDP support, and empowerment and capacity building (see Working Paper 2 Poverty, Gender and Targeting).

**Table 19: Targeting Checklist Questions**

<b>Design</b>	
1. Does the main target group - those expected to benefit most- correspond to IFAD's target group as defined by the Targeting Policy (poorer households and food insecure)?	The target group corresponds to those identified as poor in the most recent surveys and studies in Turkey The incidence of food insecurity is minimal.
2. Have target sub-groups been identified and described according to their different socio-economic characteristics, assets and livelihoods - with attention to gender and youth differences? (matrix on target group characteristics completed?)	Yes. See Appendix 2 and Working Paper 2. Poverty, Gender and Targeting in Turkey.
3. Is evidence provided of interest in and likely uptake of the proposed activities by the identified target sub-groups? What is the evidence? (matrix on analysis of project components and activities by principal beneficiary groups completed?)	Yes, interest in up-take was expressed during fieldwork.
4. Does the design document describe a feasible and operational targeting strategy in line with the Targeting Policy, involving some or all of the following measures and methods:	Yes. See Appendix 2 and Working Paper 2 Poverty, Gender and Targeting in Turkey.
4.1 Geographic targeting – based on poverty data or proxy indicators to identify, for area-based projects or programmes, geographic areas (and within these, communities) with high concentrations of poor people	This is the main targeting mechanism of the Project and has been reviewed and justified.
4.2 Direct targeting - when services or resources are to be channelled to specific individuals or households	In the form of (1) identifying the poor, (2) supporting their access to Project benefits, and (3) directly contacting them to participate.
4.3 Self targeting – when goods and services respond to the priority needs, resource endowments and livelihood strategies of target groups	
4.4 Empowering measures - including information and communication, focused capacity- and confidence-building measures, organisational support, in order to empower and encourage the more active participation and inclusion in planning and decision making of people who traditionally have less voice and power	The Project features proactive community mobilisation and the generation of participatory modalities of natural resource rehabilitation and post-improvement maintenance.
4.5 Enabling measures –to strengthen stakeholders' and partners' attitude and commitment to poverty targeting, gender equality and women's empowerment,	Project approach is geared to real conditions and cultural norms, including prevailing gender roles. Measures include



<b>Design</b>	
including policy dialogue, awareness-raising and capacity-building	direct consultation of women in intervention planning and implementation.
4.6 Attention to procedural measures - that could militate against participation by the intended target groups	Risks and potential obstacles posed by procedural issues, along with mitigating measures, have been outlined in Appendix 2 and the supporting Working Paper 2.
4.7 Operational measures - appropriate project/programme management arrangements, staffing, selection of implementation partners and service providers	See Appendix 2 and Working Paper 2 Poverty, Gender and Targeting in Turkey.
5. Monitoring targeting performance. Does the design document specify that targeting performance will be monitored using participatory M&E, and also be assessed at mid-term review? Does the M&E framework allow for the collection/analysis of sex-disaggregated data and are there gender-sensitive indicators against which to monitor/evaluate outputs, outcomes and impacts?	The strong M&E capacity of the MFAL with regard to agricultural production and land management with appropriate tracking of socio-economic and poverty reduction indicators by the Project. All indicators in the LF will be gender-disaggregated when appropriate.

8. **Gender.** Overall, the GTWDP is gender-neutral. In the Turkish context and within the framework of current IFAD experience in the country, a number of measures and mechanisms would be implemented for supporting women's involvement, including:

- Selection of service providers with proven capacity in working with women; when required this would include female facilitators.
- During the awareness raising, in the initial stages of the Project, and in subsequent village meetings, there would be separate sessions held with women to ascertain their opinions and needs.
- On a demand-driven basis, women would be given preferential access to appropriate activities such for small scale poultry production, MAPs, ;
- Gender mainstreaming responsibilities would be integrated into the terms of reference of all Project staff as a principle to be respected; and
- M&E and knowledge management systems of the Project would be gender-disaggregated and would enable lessons to be learnt on how to support women's social and economic empowerment.



## **Appendix 13: Contents of the Project Life File**

1. The following documents are part of the Project Life File and are available on the NEN Operation Desk site for Turkey and on IFAD Web Site.

### **Country Documents**

2. 2006 COSOP for Turkey, and its 2011-2012 Addendum
3. IFAD Study on engagement with MICs (Turkey case study, May 2014)
4. Government's relevant strategies:
  - Long-term Strategy 2001-2023 ,
  - Strategic Plan for Agriculture for 2013-2017,
  - National Climate Change Adaptation Strategy and
  - Action Plan 2010-2020,
  - SIPs for Konya and Karaman,
  - KOP Vision report 2023

### **IFAD Strategy and Policy Papers**

5. IFAD Guidelines for project design report and logical framework
6. IFAD policy papers on targeting, gender, private sector, environment, value chain projects
7. IFAD Strategic Framework 2011-2015

### **Documents related to Project Design**

8. Concept Note for the GTWDP (December 2014)
9. CPMT meeting minutes (November 2014, February 2015, April 2015 and May 2015)
10. OSC Minutes of the Concept Note (December 2014)
11. QE Panel Report
12. QA Panel Report (June 2015)

### **Documents related to other Projects in Turkey**

13. Design Report of the Murat River Watershed Development Project (MRWDP), Dec. 2012, and Ardahan, Kars-Artvin Development Project (AKADP), December 2009
14. Supervision reports for AKADP, MRWRP, DBSDP, SEDP
15. Completion Reports of Sivas-Erzincan Development Project (SEDP) and Diyarbakir, Batman and Siirt Development Project (DBSDP)



## Appendix 14: Environmental and Social Review Note

### Introduction

1. The Environmental and Social Review Note (ESRN) for the Göksu Taşeli Watershed Development Project (GTWDP) was prepared in accordance with IFAD's Environmental and Social Assessment (ESA) Procedures (2009) on the basis of information gathered by various mission members in the course of Project Design Missions to Turkey in December 12-17, 2014 and January 25 – February 2015.
2. The project will not do harm to the environment. On the contrary, it will help preserve the environment through the activities summarized as the following: water conserving drip irrigation, water harvesting, terracing on agricultural land, solar energy, grazing lands' rehabilitation, introduction of IPM and greenhouse production. It would be classified as Category B.

### Description of Project and Components

3. The development goal of the GTWDP Project would be to contribute to the reduction of rural poverty and regional income disparity in Turkey. The development objective would be to increase smallholder farmers' income from highland agricultural production systems and marketing activities while strengthening their resilience to climate shocks and their capacities to organize. Two complementary Project components comprise: i) Agricultural Productivity and Natural Resource Management and ii) Market Access Enhancement.
4. **Component 1. Agricultural Productivity and Natural Resource Management.** This would improve overall agricultural productivity, consequently profitability, by sustainable management of available and often scarce land and water resources in upland areas through good agricultural practices and climate smart investments that reduce risks of external shocks and increase the adaptation capacity of existing production systems. There would be two sub-components: 1.2. Improved Agricultural Productivity and Quality, and ii) Natural Resource Management.
5. Financing would be provided under a Matching Grant Program for productive investments and equipment such as drip irrigation and plastic tunnels for vegetable production. The drip irrigation would replace existing open, earth canal systems and flood irrigation, thereby reducing erosion and soil runoff of on sloped marginal lands.. Furthermore, small-scale investments for water such as water harvesting ponds, livestock drinking water access points and water collection ponds for small-scale irrigation would receive Project support. IPM would be introduced that also covers solarisation that is a non-pesticidal method for controlling disease, nematodes and weeds in plastic houses.
6. The Component would have a positive effect on the environment where all agricultural activities would introduce best practices for production and utilize water saving and efficient drip irrigation in all new investments while improving to drip in the existing ones. The Component's Natural Resource Management element would reduce degradation in the rangelands through investments that support sustainable use of available resources such as, grazing management plans, drinking water for livestock that is harvested from existing springs and the use of solar energy for power generation for electrical equipment.
7. **Component 2. Market Access Enhancement.** This would support investments that do no harm due to their intrinsically environmentally neutral nature. The investments would be based on business plans (BPs) that would ensure that there are no negative environmental consequences. The BPs would be reviewed and approved by the Central Project Management Unit (CPMU) of the MFAL that would receive training on IFAD Guidelines on Environmental Assessment. Furthermore, all enterprises that draw and discharge water are subject the Environmental Laws of Turkey. All investments require the approval from the Provincial Directorate of Environment and Urban Affairs. The component would also support studies and piloting of rural tourism in the Project area. The initiative would be expected to further improve the environmental awareness of the local residents

after being trained in the benefits of preserving the natural landscapes in order to sustain incomes from rural tourism.

8. The Project as a whole would also empower women particularly in environmentally friendly small-scale production, drying and packaging of fruits while also providing training on sustainable harvesting of MAPs from the wild.

9. Both components of the GTWDP would have a positive environmental impact in terms of introduction and utilization best practices for those activities and investments supported. These range from good agricultural practices to energy saving technologies, and improvements in water use efficiency, as well as building capacity and strengthening institutional know-how for the implementation and sustainability of these activities.

### **Major Site Characteristics**

10. The geographic targeting of the GTWDP is based on the poverty index and the need to develop the inherent potential of the area for fruits and vegetables of high value through supporting investments that increase the resilience of the poor upland semi-commercial smallholders to anticipated impacts of climate change while decreasing their adaptation deficit to ensure best use of the available, yet scarce, resources such as land and water.

11. Based on the above, the GTWDP would be implemented in the 11 poor districts of Konya and Karaman, only in those villages that are in the mountainous parts of the provinces, at 600-1800m elevation. The project area is geographically located in the Western Mediterranean Basin, in the Upper Göksu Basin and Taşeli Plateau. All settlements in the Project area are classified as “forest villages” but the planned interventions are all on the pockets of private land in the officially “gazetted forest area”.

12. According to the Socio-Economic Development Index (SEDI) Ranking developed and used by the Ministry of Development (MoD) the districts in the area rank among lowest in Turkey. There continue to be substantial socio-economic development disparities in contemporary Turkey between rural and urban areas, between lowland and upland areas, and between the western and the eastern provinces of the country. These are due to the structural transformation dynamics of the Turkish economy in which the contribution of industry and services has proportionately increased as a result of exports and domestic consumption driven growth and globalization. The widening income gaps have been manifested in substantial seasonal and permanent economic migration from rural to urban areas, from agriculture to other sectors, and abroad in search of employment opportunities and better socio-economic infrastructure.

13. In the upland villages Konya and Karaman, many of the residents are the poor but productive and commercially active. The climate is harsh with snow cover for about three months a year. The population of the Project is 108,262 residing in the 212 upland villages of the 7 districts. The main source of livelihood for this upland population is semi-commercial agriculture (mixed farming) that is horticultural crops marketed nationally and exported. Due to the significant outmigration particularly over the past 30 years, remittances from family members, income from seasonal migration for employment and state welfare transfers in cash and in kind as coal for heating supplement household incomes.

14. The rough topography and climate makes the Project area prone to erosion that has been aggravated by forest and rangeland degradation over several decades of overharvesting for fuel and fodder and overgrazing, mainly by small ruminants. However, pressures has been gradually decreasing due to: i) the behavioral changes both on the community and foresters' side as a result of participatory approaches to natural resource management on forest lands, and ii) the reduction in the number of small ruminants due to socio-economic reasons including difficulties in finding shepherds. Therefore, the erosion and land degradation levels in the area are still reversible with the resident potential for rehabilitation being addressed by the Directorate of Forestry (OGM) of MFWA.

### **Issues in Natural Resource Management**

15. The area is predominantly sloped and prone to erosion due to unsustainable use of forest resources to meet timber, fuel and fodder demand and the lack of effective soil conservation practices on agricultural land, such as cultivation on steep slopes. This has resulted in degradation of land and water resources. In general, only 6.6% of the land in Turkey does not suffer from erosion with 7.2% slightly, 20.1% moderately, 36.4% severely and 22.3% very severely eroded. Reduced vegetative cover has led to marked reductions in soil moisture content, thus making agricultural lands more vulnerable to drought. Land degradation has led to unstable slopes and increased incidence of flooding, sedimentation problems, and landslides.

16. Project implementation is not expected to have any detrimental impacts on the natural resources – on the contrary, impacts are expected to be positive. Four key elements to success are i) the planned synergies with the on-going Ministry of Forestry and Water Affairs' micro-catchment (MC) based water shed rehabilitation program in 7 MCs where the GTWDP is planned, ii) the improved rangeland management, which is expected to reduce the pressure on pasture and plant regeneration, and iii) the terracing on farmer plots that are on marginal lands that would halt erosion and iv) support for the production of MAPs such as thyme on marginal lands to reduce erosion.

17. The comprehensive monitoring of Project activities would ensure that no new agricultural area are brought into annual crop production in sloped areas. Environmental assessments, if deemed necessary, would be guided by the Project Implementation Manual (PIM) to ensure that Project interventions conform to the principles of sustainable management of natural resources in each individual case.

### **Project Activities and Environmental Consequences**

18. The project is expected to have a direct positive social and environmental impact as a result of its activities in organizing farmers, adoption of efficient production practices and investing in small facilities that reduce wastage and post-harvest losses while assisting in diversifying employment opportunities in off-farm enterprises through access to matching grants, capacity building and technical assistance, etc.

19. Activities and investments that would benefit from the Matching Grants Program (MGP) would include purchase of agriculture inputs, and establishment of orchards, vineyards and green houses. The MGP would not be used for the purchase of hazardous chemicals that could negatively affect the ecosystem. In all agricultural production, given the proven export potential of the area for F&V, guidelines for Good Agricultural Practices (GAP) concerning pesticide and chemical use and GlobalGAP would be applied. In this context, the project's environmental impact would be positive.

20. The types investments for facilities are expected to include solar drying for MAPs and grapes, packing houses for fruits, plastic tunnels, etc. None of these investments generate any hazardous waste nor threaten the environment.

21. The project activities would not be implemented in environmentally sensitive areas, such as national parks, wildlife reserves, classified forests, nor have adverse impacts on archaeological and/or historical sites. The project would not support activities that might generate significant irreversible or cumulative environmental impacts and is therefore classified as category "B" according to IFAD's Administrative Procedures for Environmental Assessment. The classification is based on the available information gathered during the field visits and on-site assessment in the country.

### **Climate Change**

22. Predictions and knowledge of global climate change's impact on the world's countries and regions are still limited. However, the comprehensive modeling of climate change, mainly commissioned by the IPCC, brings some overall conclusions that coincide with recent climatic observations: temperatures rise and weather becomes more variable and erratic with more severe storms and frequent droughts. For the mountainous regions of the Western Mediterranean, climate change will most probably have both negative and positive impacts. The winters are expected to be

shorter, which will significantly improve the overall wellbeing of those living in upland villages. Higher temperatures would increase agricultural productivity and it could be possible to cultivate new and higher yielding varieties of crops and vegetable. On the negative side there may be more intense rainfall over short periods and there may also be prolonged periods of droughts.

23. The project's design would build resilience into the livelihood systems of the upland village populations to better cope with the anticipated fluctuations in the climate. Thus, it is important to promote such holistic improvement of people's livelihoods, coupled with measures to retain soil moisture, stabilize slopes, and harvest water for small scale irrigation and livestock drinking water.

### **Potential Social and Environmental Impacts and Risks**

24. The Project would adopt a participatory, menu-driven approach and would work to increase the willingness of communities to engage in Project-sponsored interventions that are design to increase the resilience of the smallholders by substantially increasing their resilience to environmental/climatic shocks that would be economically catastrophic.

25. The only potential environmental issue faced by the Project is associated with the management and disposal of construction material waste and excavation materials during small-scale renovation/rehabilitation related to the civil works investments under the GTWDP (e.g. small water ponds, rehabilitation of on-farm canals, drinking water troughs, access roads to rangelands). In these investments, the relevant environmental guidelines would be applied throughout the investment decision-making process. The Project would be responsible to ensure that all necessary environmental mitigation measures are built into designs and implemented during supervision of civil works. All earthworks that relate to terracing and construction of ponds for water harvesting from small streams would be based on best practices that are *de rigueur* for GDAR.

26. No major shift in designated land use is envisaged. Any irrigation works would be associated with the improvement and/or modernization of existing schemes and may involve a slight spatial expansion of farming area as result of improved water use efficiency and access to such. Investments for livestock drinking troughs would only be on existing rangeland where the carrying capacity would be incorporated into investment decision-making procedures. It is not anticipated that any Project-supported investment would involve the opening up of new areas or major infrastructure works.

### **Environmental Category**

27. The Project document clearly describes the proposed activities. The Project's investments for improving agricultural productivity and profitability, while improving marketing access would clearly be expected to promote short, medium-, and long-term environmental benefits. The supported interventions are not expected to result in any negative environmental outcomes.

28. The Project's design would help to reduce pressure on natural resources and assist men and women to engage in more productive and resource-efficient farming that would help to support livelihoods. It would promote more efficient use of the natural resources and energy and thus enhance the resilience of rural households to shocks and reduce their vulnerability to extreme weather events. The thrust of the Project's interventions and investments are directed to improve agricultural practices in fragile upland ecosystems, thus the GTWDP is proposed to be classified as **Category B**.

### **Further Information Required**

29. No further information is required to complete the environmental screening and scoping exercise for the Project.

### **Recommended Features of Project Design and Implementation**

30. The Project does not have any major infrastructure investment activities, and the work to be undertaken is limited to plantations for orchards and vineyards that provide perennial vegetative cover, infrastructure that maintains if not improve rangeland, and small-scale irrigation that conserves water. These activities are individually and collectively to positively contribute to the environmental, social and health wellbeing of the communities involved.



31. Turkey has ratified all the most relevant environmental conventions – Convention on Biodiversity (CBD), UN Framework Convention on Climate Change (UNFCCC), Convention on Wetlands of International Importance, especially as Waterfowl Habitat (Ramsar), UN Convention to Combat Desertification (UNCCD), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) – and related national policies and strategies have been introduced and to a great extent incorporated into relevant legislation. Turkey is a potential candidate country for EU accession and an UMIC. Hence, necessary environmental legislation exists and would form the overarching regulatory requirements for implementation of Project activities.

### **Monitoring Aspects**

32. The beneficiaries and their communities would receive the requisite training for best practice in agriculture. Impact monitoring will include the participation of communities in the monitoring of the rangelands. Monitoring of the work would be embedded within the Project's M&E system. The incorporation of Project baseline and M&E data would be enhanced by TARBI of the MFAL that has a Geographic Information System (GIS) base and would ensure for precise monitoring of the Project outcome. The collection of data to be layered within this system would also allow for monitoring (as detailed in Annex 6) the relationship between Project implementation and poverty reduction in the Project area.

33. The GDAR and the Project's CPMU would be responsible for adherence to the requirements of the environmental legislation of Turkey and IFAD Guidelines on Environmental Assessment in order to avoid any unforeseen negative impacts, and, if and when necessary, to introduce appropriate mitigation measures.

34. In the course of its supervision missions, IFAD would review regularly the relevant Environmental Assessment documents and implementation of the recommended measures for randomly selected activities.