



Food and Agriculture Organization Representation in Azerbaijan

### **REPUBLIC OF AZERBAIJAN / FAO**

### NATIONAL MEDIUM-TERM PRIORITY FRAMEWORK

### (2010–2012)

June 2010

Ministry of Agriculture Government of the Republic of Azerbaijan FAO Representation Food and Agriculture Organization of the United Nations (FAO)

#### JOINT STATEMENT

The Government of the Republic of Azerbaijan, represented by the Minister of Agriculture (MoA) and the Food and Agriculture Organization of the United Nations (FAO) represented by the FAO Representative in Azerbaijan, are pleased to jointly launch the FAO National Medium-term Priority Framework (NMTPF) 2010-2012 in Azerbaijan, as stipulated hereunder.<sup>1</sup>

The FAO NMTPF 2010-2012 is the result of extensive consultations held with a wide range of stakeholders and partners within the country as well as with the relevant technical units of FAO headquarters in Rome and the regional and sub-regional offices in Budapest and Ankara, respectively. The signatories below express sincere appreciation to all who have so willingly made constructive comments and suggestions through the consultative process.

This document, co-owned by the Government of the Republic of Azerbaijan and FAO, indicates the broad commitment of FAO, subject to the availability of required funding, to assist the Government of the Republic of Azerbaijan in its efforts to achieve national development objectives as described in the main National State Programs and Strategies.

It supplements and contributes to the strategic objectives of the UN common system as expressed in the UN Development Assistance Framework (UNDAF) 2011-2015 for the Republic of Azerbaijan.

By endorsing the FAO NMTPF 2010-2012, the Government of the Republic of Azerbaijan is committed to providing collaboration to the fullest possible extent with regard to available capacity and resources, to facilitate the achievement of the objectives and actions proposed in this document.

The FAO NMTPF 2010-2012 will be pursued in partnerships as broad as possible and in full alignment with the joint efforts of the Government of the Republic of Azerbaijan and the donor community for enhanced coordination and aid effectiveness. The Government of the Republic of Azerbaijan and FAO look forward to seeking collaboration and support from concerned partners *vis-à-vis* the successful implementation of the FAO NMTPF 2010-2012.

Minister Ministry of Agriculture (MoA) Government of the Republic of Azerbaijan FAO Representative Food and Agriculture Organization of the United Nations (FAO)

Date: .....

Date: .....

<sup>&</sup>lt;sup>1</sup> A review of the NMTPF is foreseen by mid-2012 in order to evaluate the progress of its implementation and the validity of the priorities here outlined, taking into consideration the fast evolving economic situation and needs of the Republic of Azerbaijan.

### TABLE OF CONTENTS

JOINT STATEMENT	ii
TABLE OF CONTENTS	iii
1. INTRODUCTION	1
2. SITUATION ANALYSIS	3
<ul> <li>2.1 Main Economic and Social Features</li> <li>2.2 Main Challenges and Opportunities for Agriculture and Rural Development sector</li> <li>2.3 National Agricultural Development Priorities</li> <li>2.4 Existing Platforms for Aid Coordination and Partnership Building</li> <li>2.5 Challenges and Opportunities for Field Programme Development</li> <li>2.6 Priority Focus of the NMTPF in the Republic of Azerbaijan for 2010-12</li> </ul>	3 4 6 7 8 9
3. PROPOSED PROGRAMME FRAMEWORK	10
3.1. Enabling Environment for Investments in Agriculture, Livestock, Forestry and Fishery Development	10
3.2 Protection and Management of Natural Resources	13
3.3. Sustainable Equity-driven Agriculture Production and Income Generation	16
3.4. Strengthening the Policy and Institutional Framework for Agriculture and Rural Development	17
3.5. Capacity Development for the design, operation and maintenance (O&M) of Rural Economic Infrastructure	26
ANNEXES	
Annex 1: Abbreviations and Acronyms	27
Annex 2: UNDAF and NMTPF Priority Areas	28
Annex 3: Selected elements on FAO projects and programs in Azerbaijan	31

### 1. INTRODUCTION

The following document represents the FAO's National Medium-term Priority Framework (NMTPF) for the Republic of Azerbaijan during the period 2010 to 2012<sup>2</sup>. It prioritizes FAO interventions in the country to support the achievement of the development objectives set by the Government of the Republic of Azerbaijan in its main strategies and State Programs, such as the State Program on Poverty Reduction and Sustainable Development (2008-2015), the State Program on Reliable Provision of the Population with Food (2008-2015), and the State Program on Social-Economic Development of Regions (2009-2013). It builds on and elaborates FAO's Programme in the Republic of Azerbaijan and is an expansion of that programme. Furthermore, the priorities identified by the NMTPF are reflected in those included in the new cycle of the United Nations Development Assistance Framework (UNDAF) for the Republic of Azerbaijan 2011-2015 (see Annex 2).

In order to ensure FAO's comparative advantages, maximize synergy and increase aid effectiveness, the NMTPF also takes into account the relevant strategies and priorities identified by FAO's partner agencies, such as: the EU five-year European Neighborhood Policy Action Plan (ENP/AP) for Azerbaijan adopted in November 2006; the new EU South Caucasus Strategy<sup>3</sup> discussed by EU Ministers in September 2009; the EU and Central Asia Strategy for a New Partnership adopted in June 2007 and presently being revisited; the EU's Eastern Partnership<sup>4</sup>; the Country Partnership Strategy (CPS) 2007-2010 with the World Bank (WB)<sup>5</sup>; the Swiss Program for the South Caucasus jointly supported by the Swiss Agency for Development and Cooperation (SDC) and the State Secretariat for Economic Affairs (SECO)<sup>6</sup>; and the U.S. Agency for International Development (USAID) program.<sup>7</sup>

The formulation of this NMTPF has involved an iterative review of national priorities for food, agriculture, forestry and fishery development as well as the analysis of major ongoing and planned development programmes in the Republic of Azerbaijan and exchanges with both national and international stakeholders identified through a mapping exercise carried out by the FAO Sub-Regional Office for Central Asia.

The development of the present framework has been based on a five-step approach:

The first step was based on analytical work including an initial review of: (1) Government's development policy goals for agriculture, (2) the agricultural situation in the country, and (3) past and present programmes of other donors, development agencies and FAO in Azerbaijan. This culminated in a Launching Workshop held in Baku during January 2009 with national authorities and other stakeholders, involving discussions on NMTPF concept and preliminary indications on possible medium-term priorities for Government/FAO collaboration. In order to ensure ownership of the process by the Government, a NMTPF Steering Committee was formed under the responsibility of MoA and its Focal Point,

<sup>&</sup>lt;sup>2</sup> The duration of the present NMTPF (2010-12) fits with the final steps of the joint preparation and start up of the new UNDAF cycle 2011-15. At mid-2012 a review will be carried out in order to: i) evaluate the progress of its implementation and the validity of the priorities outlined here; ii) take into account the fast evolving economic situation and needs of the Republic of Azerbaijan; and, iii) make eventual adaptations for the following period 2013-15, coinciding with the second half of UNDAF cycle 2011-15.

<sup>&</sup>lt;sup>3</sup> Involving Azerbaijan, Armenia and Georgia.

<sup>&</sup>lt;sup>4</sup> Involving Azerbaijan together with Armenia, Belarus, Georgia, Moldova and Ukraine.

<sup>&</sup>lt;sup>5</sup> Azerbaijan/WB CPS rests on four main pillars: i) improving the quality/transparency in public sector governance; ii) supporting sustainable and balanced growth of the non-oil economy; iii) increasing the quality of and access to social services; iv) improving environmental management and furthering the climate change agenda.

<sup>&</sup>lt;sup>6</sup> SDC and SECO assist from 1998 cooperation programmes in Azerbaijan, Armenia and Georgia aimed at alleviating poverty, supporting sound democratic structures and the transition process towards a market economy (e.g. through infrastructure co-financing, capacity development at the Ministry of Finance, support to financial sector development and promotion of private sector development).

<sup>7</sup> The current USAID portfolio focuses on support to just governance and democracy, economic growth and prosperity, and improved health care, especially for mothers and children.

including representatives from the Ministries of Economic Development, Ecology and Natural Resources and Foreign Affairs as well as from the Amelioration and Water Farm Open Stock Company (OSC). Based on conclusions/recommendations of the above NMTPF Launching Workshop, FAO identified nine potentially strategic areas for possible future FAO assistance/collaboration and recruited nine National Consultants to carry out sectoral studies in close collaboration with relevant national institutions.<sup>8</sup> The work of the national consultants also included a number of consultation meetings with major stakeholders both in Baku and the regions, with the view to discuss and validate relevant sub-sector priorities. During the drafting of these sub-sectoral studies, the advancement and first results of the work were also regularly discussed with FAO.

The second step involved further discussions on priority collaborative work between the Republic of Azerbaijan and FAO which culminated in a Prioritization Workshop in Baku during October 2009 with the aim of: a) informing government officials and national stakeholders active in the agriculture and rural sector in the country - including the private sector and NGOs - about the advancement in the preparation of the NMTPF document; and b) having a joint brainstorming and consensus building exercise on priority areas and programmes tentatively identified and proposed for possible FAO assistance to Azerbaijan over the next three years. The results of the above Workshop have represented the basis for producing the Preliminary Draft NMTPF document.

The third step has been the Workshop held in Baku in December 2009 for the presentation and discussion of the above Preliminary Draft. In particular, the purposes of the Workshop were: i) informing national and international stakeholders active in the agriculture and rural sector in the country about the priority thematic areas and relevant actions tentatively identified and reported in the Preliminary Draft NMTPF document; ii) having an initial joint brainstorming and consensus building exercise aimed at orienting towards a process of realistic selection of the priority areas and programmes tentatively identified and proposed for possible FAO assistance to Azerbaijan over the next three years (2010-12); and iii) agreeing on the subsequent analysis and formal comments on the priority actions finally retained by the Government for FAO assistance during the next three-year period, in possible synergy and collaboration with the donor community and other development partners

The fourth step was the submission, through the Cabinet of Ministers, of the Final Draft NMTPF document revised during the above workshop to all relevant national institutions and entities in order to get their official written comments and suggestions, also aimed at facilitating the review, priority selection and finalization of the document before its official submission. Among other, this step in the NMTPF process was expected to lead to a better concertation and identification of possible synergies among all partners interested in the development of the rural sector in Azerbaijan.

The fifth step is the official submission of the NMTPF document in view of its signature and adoption by the Government and FAO. Concerning the very important aspect of the selection by the Government of the final NMTPF priorities for possible implementation with FAO involvement, it must be said that actually FAO would not be in the position to cover by its own all the areas that have been defined in this document. This final selection process will take place at a later stage and will be a joint effort by relevant Government entities and FAO, also based on the available contribution by both sides as well as on possible complementarities, synergies and operational collaboration and co-funding by other donors and IFIs.

<sup>&</sup>lt;sup>8</sup> The nine sub-sectors selected for studies by National Consultants are: Land Management; Water Management; Crop Production; Animal Husbandry; Forestry; Fisheries; Agro-Industry; Food Safety; Rural Development /Policy Issues.

This document has thus been formulated through extensive consultations with relevant line ministries and national institutions as well as development partners, including the United Nations Country Team (UNCT), international financial institutions (IFIs) and bilateral and multilateral donors. Effective partnerships will be pursued with the interested stakeholders in the implementation of the FAO NMTPF 2010-2012 in the Republic of Azerbaijan.

In identifying FAO's medium-term strategy and priority areas, particular attention has been given to existing opportunities and constraints faced by the Republic of Azerbaijan in achieving its national development goals and by FAO in providing effective assistance at a country level.

This document is jointly owned by the Republic of Azerbaijan and FAO. It demonstrates FAO's commitment to the spirit of the Paris Declaration on Aid Effectiveness of March 2005, which stresses coordination, harmonization and partnership within the donor community at the country level. The NMTPF is of a rolling nature, to be jointly reviewed and adjusted every two or three years by the Republic of Azerbaijan and FAO to reflect emerging requirements and changes in the policies, directives and priorities of the Republic of Azerbaijan and those of FAO as directed by its governing bodies.

### 2. SITUATION ANALYSIS

### 2.1 Main Economic and Social features

Azerbaijan, with a population of over 8.6 million in 2008, out of which 51.4% are urban and 48.6% are rural, is the most densely populated among the Southern Caucasian republics. Some 80% of the population is concentrated in valleys and low lands, where industrial centers are located, farming is more convenient and irrigation more developed, while around 20% live in mountainous areas.

Azerbaijan is a middle-income country with a gross national income per capita of US\$ 3,660 in 2008 (Atlas method) mainly due to its richness in mineral resources, basically oil and gas which contribute approximately 54% of GDP. Azerbaijan experienced impressive GDP growth in recent years coupled with very significant poverty reduction.

The average annual GDP growth rate for 2003-2008 was 20%, led mainly by oil and gas production, while non-oil GDP grew by 8% a year, led by construction and services. During this period, poverty more than halved. In 2006, the country had the highest growth rate worldwide (34.5%). In 2007 and 2008, Azerbaijan's economy continued to grow at 25% and 11% respectively: the oil sector grew at 37% and 7% respectively, while the non-oil economy grew at 12% and 17%. In 2008, non-oil growth came primarily from construction (36% growth) and services (14% growth), while agriculture grew a respectable 6%.

The sources of aggregate demand in Azerbaijan are oil exports and domestic consumption and investment, which have been supported by rising public spending. However, the projections on the medium-term show a different scenario: in fact, oil production is expected to peak in around 2011, level off for several years, and decline thereafter in the absence of major new discoveries.

Diversified development of the non-oil sector and non-oil export development will be critical for the generation of new jobs and the sustainability of the economy. Improved human capital will be also an important ingredient for the country's success and for diversifying its economy.

The country has the advantage of having fertile agricultural land and before independence Azerbaijan was one of the Soviet Union's important sources of agricultural goods. In addition, Azerbaijan is among the leaders in the CIS in farm privatization and registration of arable land. Also, the country's location at the cross-roads of Europe and Asia offers potential for future growth in trade and transit facilities.

As a general statement, it can be said that Azerbaijan's economy stands on the verge of a major oil boom and an important economic transition. With the expected oil production decline, the country is now facing the major challenge of the most possible effective management of oil revenues that could ensure growth in the non-oil economy and a continued and sustainable reduction in poverty.

#### 2.2 Main challenges and opportunities for Agriculture and Rural Development sector

The territory of the Azerbaijan Republic encompasses nine of the eleven world climatic zones, giving the country a rich agro-climatic diversification. In a number of these zones, however, rainfall is relatively low, making much of the country's agriculture dependent on irrigation.

#### Land and land reform

Until 1991, just before the collapse of the system, the Azerbaijan agriculture sector included 983 collective (*kolkhoz*) and 820 state-owned farms (*sovkhoz*), which cultivated a total of 1.46 million ha. In 1996, after the collapse of this system, Azerbaijan passed the Land Reform Act, which transferred state-owned lands to individuals. By 2001, the reforms had allowed for the creation of approximately 800,000 small private farms. However, while the average farm size after the redistribution was 2.6 ha, a vast number of family farms (45%) owned only between 0.1 and 2 ha.

Thus, if on one side the process of land reform effectively and rapidly privatized productive lands, it also created a pattern of small, fragmented plots which has a significant impact on the concrete opportunities for achieving economies of scale in production, services, and equipment utilization.

One response to the above small farm size has been the concentration on labor-intensive and fairly scale-neutral production and export of fruits and vegetables. This is the case for apple and pomegranate, for which there is growing demand particularly from Russia, which has resulted in doubling the exports in the last five years.

Another response has been the concentration of land holdings through purchase by larger farmers, or the rental, borrowing or contract-farming by large farm operators of land belonging to others. In addition, larger farmers usually own farm machinery they may rent out for land preparation, seeding, fertilization and harvesting.

#### Agricultural employment, production and exports

Slightly more than half of national land area (4.74 m ha or 55% of the total land area) is used for agricultural purposes, including cultivation, pastures and rangeland.

As indicated above, the share of agriculture to total GDP was 12% in 2004. Today it has decreased to less than 6% of GDP (or about USD 4.5 billion in 2008), even if it continues to provide livelihoods to almost half of total households. At present, agriculture accounts for approximately 40% of employment in Azerbaijan (about 2.3 million workers), compared to approximately 1%, (or 58 000 workers) for the oil sector). Also due to the heavy public incentive system, in 2008 the volume of agricultural production increased by over 6%.

Azerbaijan's major cash crops are grapes, apples, hazelnut, potatoes, pomegranate, cotton, tobacco, citrus fruits, and vegetables. The very favorable climate conditions facilitate the production process, allowing for 3 to 4 growing cycles per year which, together with lower energy costs, make Azerbaijan very competitive. In last years, both apples and pomegranates are increasingly being processed into juice and juice concentrates.

The main agricultural products exported are fresh and processed fruits and vegetables. Although Russia and the Ukraine are the major markets, export is also expanding to Western Europe. Similarly, the export of fresh vegetable produced in greenhouses has increased 4 to 5 times in the past five years, mostly to Russia and Ukraine. Exports of other fruit and vegetable products such as cherries, persimmon, hazelnuts, kiwi, feyhoa, and particularly early potatoes, tomatoes and tomato paste concentrate, are also rapidly growing.

Azerbaijan is also the most important potato producer in the Caucasus region. During the period 1996-2005 the potato-cultivated area increased from about 21,000 ha to almost 71,000 ha (+ 334%), with total production increasing by 405% (from 214,556 MT to 870,000 MT). The main potato export market is Russia and, in second place, the neighboring countries of the Caucasus region. Potato prices are much higher than those of other staples and of most vegetables.

### Constraints and potential

Azerbaijan agricultural sector has a great potential for development, even if it still faces some important challenges. A major opportunity is represented by the steady increase in the export of fruits and vegetables to Russia in the past five years. Although the State statistics are not currently disaggregated by product, experts estimate that over 70% percent of the agricultural products are exported to Russia, with apples and persimmons alone accounting for approximately 65% of fruit exports, and greenhouse vegetables (mainly tomatoes and cucumbers) accounting for 45% of vegetable exports.

Despite these very positive results, some of the most pressing constraints include: small and scattered land plots and a fragmented farm system; limited use and access to fertilizers and irrigation technology; and limited access for small farmers to existing financing and leasing programs for agricultural inputs, including machinery<sup>9</sup>.

Another important issue is the situation of the rural and productive infrastructure and equipment: outdated, dilapidated or non-existent equipment and technology; deteriorated irrigation systems; insufficient and high-cost refrigerated trucks; limited warehouse space<sup>10</sup>, which plays against the possibility of taking advantage of seasonal variations in prices<sup>11</sup>; high cost and scarcity of raw materials and inputs (including good quality/high-yielding varieties and quality packaging materials and equipment).

Complementary but serious issues are also the lack of business management know-how and experience, which go together with the lack of modern marketing skills and relatively weak links to the international markets.

Concerning exports, it should be recognized that the very good results of the recent years have been obtained also due to the fact that current markets for most Azerbaijani fruit and

<sup>&</sup>lt;sup>9</sup> And this despite the activities of Agroleasing OSC, established in 2004 for importing and providing agricultural producers with adequate machinery like combined harvesters, tractors and trailers. Also, based on the Presidential Decree No. 1907 of 23 January 2007, "Agroleasing" OSC is engaged in bringing to Azerbaijan and leasing equipment and facilities for agricultural products processing and storage. Furthermore, the National Entrepreneurship Promotion Fund provided as soft loans in 2009 22,573 m Azeri Manats for financing 1939 crop production projects and 19,643 m Azeri Manats for financing 19 agricultural products processing projects.

<sup>&</sup>lt;sup>10</sup> In 2009, the National Entrepreneurship Promotion Fund provided through its credit organizations soft loans for 32,317 m Azeri Manats to 17 entrepreneurs for financing refrigerated warehouses projects with a total capacity of 48 thousand tons and 15,874 m Azeri Manats to 15 entrepreneurs for financing grain threshing and storing warehouses projects.

<sup>&</sup>lt;sup>11</sup> In fact, most of the demand for cold storage is for fresh fruits and vegetables, where prices during the offseason can go up 2 to 3 times. In addition, greater availability of warehouse space would enable traders to avoid having to transport most if not all their goods during the peak season, when refrigerated trucks are scarce and rates are very high.

vegetable exports are not very demanding in terms of packaging, quality, and safety standards. On the contrary, other markets in Europe and elsewhere are much more difficult to penetrate without meeting these standards. Overall, the increasing importance of internal supermarkets and other demanding buyers in food markets all over the world implies that Azerbaijan will be increasingly required to meet these high quality and safety standards, through continued efforts for improving production standards and introducing modern management systems in agriculture. And this challenge appears even more relevant in relation to the planned membership to WTO.

Overall, despite the impressive growth of all macro-indicators during the last years, the continuing disparity in income distribution, together with the high share of population living in rural areas, the significant employment in agriculture (about 40%, corresponding to almost half of national households) and the general level of poverty (estimated at 20% in 2006), while prices for basic food still remain much higher than during the pre-food crisis period, are all warning signals for food security.

As Azerbaijan's oil sector occupies less than 1% of the labor force, the overwhelming share of employment needs to come from agriculture and related sectors such as food processing industry, storage, machinery and other input supply services. But at the same time agriculture efficiency remains an open issue: essentially based on cereals production, during 2001-2009 the planted area has increased but has been only partially followed by production while yields slightly declined. In addition, Azerbaijan imports almost 50% of its cereals requirements and 60% of wheat for domestic needs.

### 2.3 National Agricultural Development Priorities

As mentioned above, the Government of Azerbaijan is active in the area of rural and agriculture development through a number of different State Programs and Presidential and Ministerial Decrees.

Among these, the 'State Program on Reliable Provision of the Population with Food in the Azerbaijan Republic - SPRPPF' for 2008-2015, provides priority to complementing traditional agricultural growing systems with modern growing technologies for obtaining high-quality harvests (including in fisheries and forestry). Its main goals for 2015 are:

- Ensuring macroeconomic stability and stable development;
- Improving the infrastructure;
- Ensuring the country's food independence.

Similarly, the "State Program on Social-Economic Development of Regions - 2009-13" is focused on the support to the economic development of the country, based on the following priorities:

- i. Upgrading and development of infrastructures required for efficient farming and food products storing and marketing;
- ii. Improvement of animal genetics;,
- iii. Improvement in the management of farming lands and soil protection;
- iv. Improvement in natural hazard risk management, preservation and efficient use of natural resources;
- v. Assist in facilitating food markets supply and access to new markets
- vi. Reorganize the phyto-sanitary services in line with EU norms in order to secure food safety and promote exports;
- vii. Improve the quality of education in agriculture by means of in-service training;
- viii. Strengthen information and consultation services for agriculture and rural development;
- ix. Improve the irrigation systems for a more rationale use of water resources;

- x. Strengthen entrepreneurship in small towns and villages by facilitating access to finance and investments;
- xi. Improve Food Safety norms and rules.

In general terms, all national policies and programs continue to assign an important role to agricultural subsidies and incentives.<sup>12</sup>

### 2.4 Existing Platforms for Aid Coordination and Partnership Building

FAO has consulted with major donors and development agencies in Azerbaijan related to the agricultural sector. Existing platforms for aid coordination and partnership building resides with the European Commission, World Bank, UNDP, IFAD, SDC, USAID and GTZ, who are among the major donor agencies in the country.

There are also platforms where FAO can collaborate with other UN agencies, nongovernmental and civil society organizations (NGOs/CSOs) and the private sector in addressing the country's socio-economic challenges.

FAO has also consulted with members of the UN Country Team in the agricultural sector. Based on the CCA Review, the new UNDAF cycle 2011-15 for Azerbaijan is organized around three main Outcomes: 1) Economic Development; 2) Social Development and 3) Governance. Several sub-outcomes under the Economic Development Outcome, as well as selected others reported under the Governance Outcome, specifically apply to agriculture and rural development and are highly relevant to FAO's mandate.

In addition, their content corresponds very well to the proposed priorities for FAO assistance to the government of Azerbaijan, as they are specified in Section 3 of the present Draft NMTPF document. The formulation of the UNDAF 2011-2015 Results Matrix in fact explicitly mentions as sub-outcomes in which FAO is expected to have a leading role and/or is to be directly involved, the following (see also Annex 2):

- National laws and regulations on agricultural products standardization and conformity are adapted to fully comply with international regulations;
- Institutional capacities of public and private institutions providing support to enterprises in delivering higher quality competitive products are strengthened;
- Rural employment creation and income diversification are integrated into agricultural and rural development policies, programmes and partnerships;
- Capacities in rural development for IDPs, refugees and local farmers are enhanced;
- Increased integration of Azerbaijan in international networks that work to strengthen national capacities and improve forest policy formulation and implementation;
- Preparation and approval of National Forest Programme and forest legislation amendments completed as a result of participatory discussion processes;
- Pesticide management is improved and the environment and public health are preserved from adverse effects of pesticides;

<sup>&</sup>lt;sup>12</sup> In this respect, the Presidential Decree No. 907 of 01/2007, established a 40 AZN/ha subsidy cost for fuel and lubricants for harvesting and 50% of fertilizer cost (for a total cost of AZN 80 m in 2007-08). The Decree No. 181, issued by the Cabinet of Ministers in 11/2007, introduced an additional 40 AZN/ha and 70% of total amount of fertilizer at the benefit of wheat producers. In August 2008, the Cabinet of Ministers issued a new Decree, confirming the previous subsidy system. In 2009 the exact amount of subsidies is AZN 60 m for fuel and motor oil, AZN 6.5 m for fertilizers (with reduce prices) and AZN 4.6 m for seeds.

- Institutions at the central and local level are enabled to collect, update, analyze and manage appropriate disaggregated and socio-economic data related to food security to support strategic planning and coordination.

This very promising correspondence, fully complies with the purpose of a partnership with other UN agencies and the UN Country Team which is to develop common approaches to achieving MDG 1 and support the Government of Azerbaijan in implementing and monitoring the national development strategies and programs. In this sense, it can be said that FAO has already organized its presence and work in the country in a way to strategically utilize as much as possible these platforms to enhance its presence and impact within the development community in Azerbaijan.<sup>13</sup>

Concerning Azerbaijan presence in regional organizations, it should be recalled that the country, among other, is a member of the Black Sea Economic Cooperation (BSEC) and the Economic Cooperation Organization (ECO) for which FAO has developed in very recent years a draft Regional Strategy for Food Security.

Also, Azerbaijan actively participated in sub-regional and regional FAO projects such as:

- Institutional Strengthening to Facilitate Intra- and Inter-regional Agricultural Trade of the BSEC Member States (finalized in October 2004), and
- Support to Economic Cooperation Organization (ECO) for the Preparation of a Regional Programme for Food Security - RPFS, redrafted in early 2008 (The draft Program Document of this RPFS was considered by an ECO Donor Conference held in May 2008 at Antalya, Turkey. However, funding for its implementation still remains to be secured).

### 2.5 Challenges and Opportunities for Field Programme Development

The FAO Representative<sup>14</sup> (FAOR) for Azerbaijan has primary responsibility for the development of the field programme in the country. The FAOR is assisted by a Programme Assistant FAOR in Baku, the Multidisciplinary Team in the Sub-regional Office for Central Asia (Ankara) and the Regional Office for Europe and Central Asia (Budapest) and the technical divisions at Headquarters.

During the 2006/2007 biennium, two FAO projects for a total value of USD 569,760 were approved from TCP funds, while during the current biennium (2008/2009) three TCP projects have been approved for a total value of USD 587,535. To these, a two-phase GCP project co-funded by SDC must be added. New TCP projects have been recently approved and/or are in the hard pipeline (See Annex 3).

Concerning regional and sub-regional programs executed with FAO involvement and also covering Azerbaijan, they are mainly related to the Highly Pathogenic Avian Influenza (HPAI) and have been funded under different sources, such as Canada, USA and Sweden.

In addition, FAO has been and continues to work in the preparation, provision of implementation support and evaluation of many of the World Bank and IFAD co-funded agricultural and investment projects for Azerbaijan. Currently, FAO's work is continuing to focus on partnership with the World Bank (in the framework of the "Agricultural Development and Credit Program - ADCP" and the "Rural Investment Services Project - RISP-2") and with IFAD (in the framework of the "Rural Financial Services and Marketing Programme - RFSMP") and is providing policy assistance and implementation support to the "Hazard Management Study". These activities, also thanks to the direct involvement of

<sup>&</sup>lt;sup>13</sup> In the context of UN-wide cooperation, FAO regular participation in the formulation of the new UNDAF cycle 2011–2015 as a member of the UN Country Team is already enhancing coordination and partnership building.

<sup>&</sup>lt;sup>14</sup> The FAO Sub-regional Coordinator for Central Asia (FAO/SEC) has a double accreditation as FAOR in Azerbaijan and is supported by an Assistant FAOR based in Baku.

several other FAO technical units, contribute to reflect FAO's potential capacity and activities as lead agency in agricultural and rural development.

In this picture, a major challenge and at the same time a significant opportunity is represented by the quite evident need for a more consistent and coherent programme-based approach for the field programme, capable of increasing the impact of the technical assistance (TA) by FAO. Within the framework of this renewed approach, such as the one provided by the NMTPF, financial resources provided by the Government of Azerbaijan could more effectively stimulate other donors funding. In this respect, if on one side the possibilities for bilateral donor funding appear to be quite limited, the challenge would be to work more closely with IFIs such as WB, IFAD, EBRD, IsDB and others.

### 2.6. Priority Focus of the NMTPF in the Republic of Azerbaijan for 2010 - 2012

The Government of the Republic of Azerbaijan and FAO, through the consultative process described above, agreed that FAO activities, during the NMTPF cycle 2010-2012, should focus on the following five **thematic priorities**:

- 1. Enabling Environment for Investments in Agriculture, Livestock, Forestry and Fishery Development
- 2. Protection and Management of Natural Resources
- 3. Sustainable Equity-driven Agriculture Production and Income Generation
- 4. Strengthening the Policy and Institutional Framework for Agriculture and Rural Development
- 5. Capacity Building for the design, operation and maintenance (O&M) of Rural Economic Infrastructure.

In order to support field programme development and resource mobilization the NMTPF consists of the following **operational priorities**:

- Building more effective partnerships and operational synergies with other major development partners and other UN agencies under the leadership of the UNRC (through joint programmes) in the framework of the new UNDAF cycle 2011-15 and the UN Reform process moving towards ONE-UN;
- Promoting new synergies between the Ministry of Agriculture and other relevant entities such as the Ministries of Economic Development, Ecology and Natural Resources, Health, the State Statistics Committee, the National Academy of Sciences, etc. and strengthening working relations with government institutions through capacity building activities/on-the-job training;
- Proactively exploring opportunities for further resource mobilization both from bilateral and multilateral cooperation as well as national funding opportunities (e.g. the State Oil Fund). This includes the development of project pipelines for new donor identification.

With these priorities, the NMTPF 2010-12 will serve as a general orientation and planning tool for FAO to take the lead in assisting the Government of Azerbaijan to achieve its development priorities in the areas of agriculture, food security and rural development, including livestock, forestry and fisheries. It will also allow FAO to more effectively collaborate with the Government of Azerbaijan and its development partners. Also in this sense, the NMTPF 2010-12 can be seen as a FAO major contribution to UNDAF and to the commitment to the UN delivery-as-one framework.

### 3. PROPOSED PROGRAMME FRAMEWORK

To translate the NMTPF priorities for the period 2010-12 into action, the Government of Azerbaijan and FAO propose the following initial programme framework. The activities proposed under each one of the five thematic priorities have been defined based on the identified needs by government authorities and stakeholders as well as FAO's comparative advantages and experience in the country and existing critical gaps in achieving the different thematic goals. In some cases, initial details and suggestions are provided on these possible future (and sometimes already ongoing) activities, while in other cases these remain at a more general descriptive level. This partial inconsistency will be adjusted in future meetings and discussions with government authorities and national stakeholders.

FAO will continue to utilize its technical expertise and lessons learned and liaison with other partners in the country, the sub-region and the region, in delivering its mandate - improving agriculture, forestry and fishery practices and ensuring sufficient and safe nutrition for all people in the Republic of Azerbaijan - with special attention to rural areas and small farm households.

In providing technical assistance and advisory services, FAO will continue to pay specific attention to social issues, including a special focus on vulnerable/food insecure groups, such as women, youth and the elderly.

In all relevant occasions, FAO will seek synergies with partner agencies. There will also be efforts to coordinate with other partner agencies with similar mandates to leverage financial, human and knowledge resources. FAO considers such strategic partnerships and aid coordination as one of the most critical elements for ensuring the effectiveness of its field programme. This would be particularly relevant for assistance to rural areas where people tend to be excluded from basic economic and social services and infrastructure, and their welfare is highly vulnerable to economic and social pressures.

As mentioned above, the thematic priorities and the initial priority programmes proposed hereunder encompass FAO's ongoing and planned interventions previous to NMTPF preparation. On the contrary, they may include additional or different interventions that are considered necessary and requested by the Republic of Azerbaijan in addressing newly emerging situations or meeting new requirements.

### 3.1. <u>Enabling Environment for Investment in Agriculture, Livestock, Forestry and</u> <u>Fishery Development</u>

FAO supports Government vision to design and implement programmes aimed at creating and enabling environment for investment in agriculture and rural development through publicprivate partnerships arrangements, building of local linkages and institutions, supporting innovation and introduction of agricultural knowledge-based technologies.

In general terms, this implies a more systematic and coherent transformation of the agricultural and rural sector from a subsistence orientation to a more diversified and modern domestic and export market-oriented system. FAO technical assistance, advisory services and capacity building activities will support on-going efforts by the Government, in particular the Ministries of Economic Development and Agriculture and donor partners, in the following areas:

- improving productivity and competitiveness through the introduction of modern technologies;

- supporting the enhancement of agricultural support systems and information management, micro-credit and rural financial services;

- promoting agro-processing and value-addition activities;

- marketing assistance and market linkage development, mainly focused on high-value agricultural products.

This will be undertaken within the context of value chain development and through encouragement of individual farmers' group formation (empowerment of farmers' groups, rural women's groups, water use associations, honey producers, fishermen and aquaculture producers, etc.) for improved resource management and products marketing.

The initial tentative action areas proposed under this thematic priority include:

# 3.1.1. Value Chain Organization and Contract Farming (also related to animal production, forestry, fisheries and aquaculture and beekeeping)

### 3.1.1.1. Value Chain Organization

One of the instruments for promoting rural development - as well as agriculture, livestock, forestry and fisheries/aquaculture program/projects - is in-depth <u>Value Chain</u> analysis, to be carried out at the initial stage and including aspects related to food security and food safety. This analysis can be carried out both at local and national level, due to the differences within the country, as a basis for identifying the key factors affecting the business efficiency for various commodities in agriculture, forestry, fisheries and aquaculture and the main gaps and existing opportunities within the system as well as related capacity building requirements. Based on the above analysis, specific capacity building actions for the value chains actors can be identified and organized and support can be offered to the formulation of adequate policies providing an enabling environment for value chains development.

Azerbaijan has historical ties to the Russian fruit and vegetable markets. Today, there is still high demand for Azerbaijani produce in Russia, particularly in Moscow where these markets are dominated by Azerbaijani merchants. While some of these markets decreased in importance after the collapse of the Soviet system and dismantling of large farms, good prices are received today for products such as tomatoes, potatoes, apples, pomegranates, feykhoa, kiwi, and many others. Furthermore, the proximity of the markets and the less stringent quality and food safety standards across the CIS region make Russia a favorable market for Azerbaijani products. This trade is also facilitated as requirements are based on Soviet GOST standards, the former system of control, which has fundamental differences with requirements in European and other markets.

As Azerbaijan looks towards potential markets in Europe and elsewhere, there will be a need to modernize and update national standards and harmonize requirements, both in terms of the official government controls, trading practices and improved capacity and infrastructure by producers and industry along the chain. Azerbaijani fruit and vegetable exports will need to meet the required standards in terms of packaging, quality, and safety standards. If these improvements are not met it will be a serious constraint in relation to accessing markets in Europe and elsewhere, which are much more demanding and difficult to penetrate. In fact, poorly packaged, graded and labeled products, as it is often the case in Azerbaijan, are not competitive, and represent one of the weakest segments in the value chain of many agricultural, livestock, fisheries and non-wood forest products.

In this area, FAO will assist in building a grading, labelling and packaging capacity at a firm level, as well as actions aimed to increase the overall competitiveness of the Azerbaijani agro-industry and the value chains which it supports. Like any other sector, an efficient and sustainable grading, labeling and packaging system requires trained management, operations and maintenance personnel; relevant educational and training institutions could then be supported in developing and/or adapting their curricula (see also point 3.4.9)

### 3.1.1.2. Contract farming

Contract farming will be promoted in sub-sectors as fisheries, aquaculture and beekeeping. In this context FAO will assist the Government, MoA and MENR in the development of the contract-farming method for different sub-sectors and also provide capacity building activities among buyers/producers and farmers/producers to exchange experience and increase awareness. Concrete output over the implementation period will be an increase of contract-farming used for various commodities in the country. The direct assistance at country level will be leveraged through the well established relationship with EBRD and the EastAgri<sup>15</sup> agri network.

### 3.1.1.3. Animal Production and Health

Livestock is a major component of the rural economy and employment in Azerbaijan rural areas, and is one of the main occupations for the population living in mountain areas. However, its scope is very limited and adequate financial support to the sector is strongly required.

FAO, in possible collaboration with other donors, will assist the Government of Azerbaijan in identifying potential Value Chains and assisting in their organization. This includes among other: improvement of animal productivity through breeding, feeding and management; development of private veterinary services and animal disease control; processing and marketing of animal products; capacity building of national professionals in animal health and livestock production.

### 3.1.1.4. Beekeeping

The appropriate relief, natural climatic factors, abundance and stock of melliferous flora and valuable bee-gene pool, create an absolutely advantageous condition for beekeeping development in Azerbaijan. Beekeeping is a contribution to diversification of income sources in rural and often isolated areas. The demand for apiarian products (such as honey, apitoxin, bee pollen, wax, royal jelly, propolis, etc.) is increasing on an annual basis both in-country and from abroad. It should be mentioned that in the State Programme on Reliable Provision of the Population with Food for 2008-2015, approved by Presidential Decree in August 2008, beekeeping development is considered as one of the priority issues.

Specific support will be given by FAO through a new TCP project aimed at the "Development of Bee Breeding in Azerbaijan", to maintain and further develop local bee gene pools. The output of the FAO support will result in an increasing income for the rural population through beekeeping activities and improved capacities and policies using the beekeeping Value Chain, also including other possible non-timber forest products such as medicinal herbs and mushrooms, as a tool for rural development.

### 3.1.2. Strengthening Extension service providers (ESP), particularly ensuring better stakeholder linkages and training to service providers and farmers

Delivering results in sales, jobs, and investment will require the provision of key sector crosscutting inputs, which will form the thrust of business assistance efforts. These include the provision of effective and sustainable business delivery services, access to finance, safety and phyto-sanitary assistance, and timely market information. Assistance to enterprises through extension services can have a high impact on agriculture development. To this end,

<sup>&</sup>lt;sup>15</sup>The EastAgri Network is supported by EBRD, WB and FAO and its secretariat is hosted by FAO. It promotes private sector investments in agriculture and agri-business in Central and Eastern European and CIS countries (see: http://www.eastagri.org).

ensuring better linkages and facilitating communication for development among all stakeholders - agricultural research, academia, extension agents, farmers and other private and NGOs, would be critical for the innovations against the background of a market economy. The principles/strategic approach to be proposed by extension services providers (ESP) has to be highly demand-driven, and it can grow only to the extent that the sector receiving this type of service grows itself.

FAO support, in addition and complementary with the assistance already provided to the World Bank "Agricultural Development and Credit Program"<sup>16</sup>, could result in an increase of extension services provided through developing service provision capacity among selected local ESP firms, not in isolation from real market transactions, but very much in a mentored, learning-by-doing, action-oriented way. This will also include capacity development and institutional support regarding the provision of regular and updated market information and more efficient services in the agriculture, livestock, forestry and fisheries sectors. FAO assistance in assessing the strengths, weaknesses, opportunities and threats of the agricultural innovations systems (AIS) in Azerbaijan, as well as in Turkey, will be provided through a new FAO Trust Fund project whose expected main outcome will be a number of measures for strengthening the agricultural research and extension systems so as to facilitate the innovations and improving the collaboration with Central Asian countries. Specific support would be required in this context from other funding sources in order to provide a comprehensive and consistent support to the development of the system.

### 3.2. Protection and Management of Natural Resources

### 3.2.1. Protection of Animal and Plant Genetic Resources

### 3.2.1.1. Animal Genetic Resources

In the recently approved "National Strategy and Policy Plan on the protection and continuous use of biological diversity in Azerbaijan Republic" special attention was focused on the protection and effective use of animal genetic resources.

Recent studies on animal genetic resources and their systematization have been carried out under public funding by the Azerbaijan National Academy of Sciences Science (ANAS), the Genetic Resource Institute (IRI) and the Scientific Research Cattle Breeding Institute under the Ministry of Agriculture. In this framework public and private farms raising both local and imported breeds were visited and studied during 2 years in various regions (Sheki-Zagatala, Mil-Mugan, Abseron and Ganja-Gazakh).

In general terms, most activities related to animal genetic resources are currently being conducted by State programs, while attention should also be given to improving the protection of animal breeds at farmer level.

In this respect, FAO's technical assistance is expected to support both the establishment of model farms for the protection of local animal breed genes, especially those under risk of disappearance (such as Gonur Gafqaz Azerbaijan buffalo and Caro sheep) and, at the same time, assist in reviewing and possibly improving the present legislation on animal husbandry.

### 3.2.1.2. Plant Genetic Resources

The conservation of biodiversity of Azerbaijan agriculture is another priority of the Government, which already requested FAO's assistance for strengthening the use of Plant Genetic Resources for Food and Agriculture (PGRFA).

<sup>&</sup>lt;sup>16</sup> n Azerbaijan there are 146 private breeding establishment specialized in milking-cattle, buffalo, sheep and bees breeding. In 2002-2008 about 30 varieties of mulberry silkworms and 12 local varieties of home birds were collected and captured for protection at the Genetic Resources Institute.

Building on FAO research and experience, assistance will be provided through a TCP project, similar to others already implemented in other countries, in Albania for example. The overall outcome would be well-trained and informed experts capable of managing Azerbaijan PGRFA program. To achieve this, the following FAO outputs may be envisaged:

- Stakeholder discussion and information exchange of technology transfer experiences and priority setting of the use of plant genetic resources for food and agriculture.
- Training of local scientists on the collection and use of PGRFA including the establishment of a database and a database management system and the training on the application of biotechnology tools to enhance the use of PGRFA.
- Training in bio-safety risk analysis, including risk assessment, risk management and risk communication on bio-safety issues arising from the use of PGRFA and their preservation.
- Production of technical publications on issues related to PGRFA in the local language.
- > Establishment of a national strategy for PGRFA conservation and use.

### 3.2.2. Promoting sustainable rangeland and pasture areas use & management

In Azerbaijan, summer and winter pastures have a critical role as a yearly provider of cheap and high quality feed for the migratory livestock. These pastures are exclusively owned by the, Azerbaijan Republic State Land Fund.

During the period 1970-90, until the breakup of the Former Soviet System, in order to develop intensive sheep breeding and as necessary for this activity, the maintenance, protection and revitalization of winter and summer pastures were among the planned actions and interventions periodically carried out in accordance with annual work plans. After the collapse of the Soviet Union in 1991, not enough activity for the development and revitalization of winter and summer pastures has been conducted. The factors mentioned below have led to serious lowering in the productivity, land erosion and finally desertification of large areas of pasture land:

- non systematic and inefficient use of pastures;
- dry and hot climatic condition in the desert and semi-desert pasture areas;
- change in the use of pasture lands, also linked to sometimes unclear land tenure and land use systems, especially in mountain, forest and protected areas;
- disproportion between the number of grazing sheep and goats per unit of pasture and the carrying capacity of pastures.

In this context, FAO technical assistance will be highly relevant for learning from the available international experience on pasture management and practices, and for designing/adapting such type of programs to Azerbaijan conditions. In particular, a new FAO TCP project very recently approved (see Annex 3) will provide assistance in the following areas:

- Analysis of agro-ecological zoning;
- > Identify protected areas and relevant quantitative and qualitative criteria;
- Identify measures for improving the system of supervision of land use;
- Environmental protection of agriculture, pasture and forest areas at risk of erosion and degradation;
- Measures for at least temporarily stopping land use in areas at risk;

Promotion of techniques for integrated pasture/forest land management as well as for intensive fodder production in accordance with the high potential role of grasslands for Sustainable Production Intensification (SPI).

### 3.2.3. Integrated water resource management, including disaster risk management<sup>17</sup>

Surface water resources of Azerbaijan located in arid zone are quite limited and during dry years their volume decreases by 60-70%. Moreover, 70% of water resources originate in neighboring countries (Georgia, Armenia, Turkey, Iran and Russia). Highly polluted rivers entering from the territories of these countries to Azerbaijan created since long years a serious environmental situation. But since South Caucasian countries (Armenia and Georgia) do not appear anxious of rapidly joining the International Conventions on water, it is likely that a more efficient use and conservation of water resources of Kura, Araz and other transboundary rivers would be quite difficult to promote and put into practice. In summer months when irrigation requirements grow, the flow of in-country rivers decreases and in most cases completely dries up, creating serious problems to crops. This is aggravated by the water releases from rivers for aquaculture, domestic and other purposes.

During recent years, probably also linked to global climatic changes, droughts, floods, overgrazing, mountain and torrents erosion and land use changes have caused important damages to the country economy and population.

FAO will consider helping in the formulation of national projects and supporting dialogue with neighbouring countries for the development of transboundary rivers management guidelines on integrated water management (including floods and torrents) so as to promote their better use, taking as a model the European Union legislative acts such as the Water Framework Directive.

### 3.2.4. Forest Assessment and National Forest Programme

Today's state of forests is the result of forestry activities realized during a long period. During the past 200 years the forest area in Azerbaijan has decreased by at least 50%. Until the 19th century, Azerbaijan was covered with 35% of forests, while at present forests cover less than 1.3 m ha or 11% of the territory. This continuous degradation process is due to two major problems, illegal logging and overgrazing, both caused by economic problems and poverty.

The differences appearing in the indicators of the average density of fuel-wood reserves and other measurements, testify the urgent need for a multipurpose management of forest resources by local communities with the help of best available practices. The insufficient number and competence of staff is one of the pressing and serious problems existing in the forest sector and creates serious obstacles for the conduction forestry programs and projects.

With the aim of better knowing the present exploitation trends and identify the most destructive ones to be stopped, it would be fundamental to analyze in detail the current state of the sector and prepare a full fledge medium/long-term National Forest Program. This could contribute to protect remaining forest areas for the supply of firewood, wood and non-wood products, and expand protected areas for recreation and biodiversity conservation.

The review/updating of the inventory/assessment of Azerbaijan forests and the design of an integrated approach to forests, rangeland and protected areas management (including

<sup>&</sup>lt;sup>17</sup> In Azerbaijan, 58-70% of water consumption is spent to meet agricultural needs, 25-35 % industrial needs, and the rest is for drinking and environmental water requirements. With a view to involve the public opinion in better water resource management, starting from 1997, the payment of water has become gradually common and today 535 Water Users unions pay the cost of water in areas covering 98 % of the irrigated lands.

forestry inspection report statistics), together with capacity development programmes for institutions and local communities and public awareness campaign involving local NGOs, are essential for the effective preparation and implementation of future programs and projects in the sector.

FAO's support is highly required in these areas and a TCP proposal will be prepared for the formulation of a National Forest Program, including the increased integration of Azerbaijan in international networks that work to strengthen national capacities and improve forest policy formulation and implementation.

### 3.3. <u>Sustainable Equity-driven Agriculture Production and Income Generation</u>

# 3.3.1. Organic Farming, Conservation Agriculture and Integrated Pest Management (IPM) e.g. *fillocsera*

### 3.3.1.1. Organic Farming

Assuring food safety and quality and better access to international markets can be achieved most effectively by the principle of prevention throughout the production, processing and marketing chain. In order to achieve good results in consumer protection it is essential that food safety is built into food products from production to consumption. In a comprehensive and integrated farm-to-table approach, the producer, processor, vendor and consumer all together play an important role in ensuring food safety. Organic farming practices may facilitate the reduction of certain risks in the food chain, in particular where there is less pesticide usage. Similar to conventional methods of food production, organic farming requires the application of good agricultural practices to ensure the safety of the final produce. Moreover, producers and government agencies require adequate information and knowledge on ecological agriculture and this field is relatively undeveloped.

FAO support could provide information related to organic agriculture as a means to produce food in a sustainable way to minimize impact on the environment and ensure safety of foods produced. This will require a policy framework, including certification requirements and best practices to be followed by producers. The following project outputs would be essential in this area:

- technical support and capacity building for field staff of MoA and ESP;
- technical support for the establishment of pilot ecological units in Ganja and Lankaran regions;
- training/study tours for farmers practicing ecological agriculture, including a specific support to equity-driven approach to development, with focus on women, youth and elders;
- strengthening the compliance criteria, certification system and legal framework and guidelines to support organic production.

### 3.3.1.2. Conservation agriculture

The utilization of conservation agriculture methods and techniques would enhance and sustain farm production of several crops such as wheat, cotton, potatoes and others, by conserving and improving soil, water and biological resources. Essentially, it maintains a permanent or semi-permanent organic soil cover (i.e. a growing crop or dead mulch) that protects the soil from sun, rain and wind, and allows soil micro-organisms and fauna to take on the task of "tilling" and soil nutrient balancing, all natural processes which are heavily disturbed by mechanical tillage. Apart from zero tillage, important elements in CA include direct seeding, crop cover, and a varied crop rotation to avoid disease and pest problems.

Conservation agriculture is also an important contribution to climate change adaptation as it facilitates carbon sequestration.

FAO has a large technical applied experience in this field and, in possible partnership with other specialized agencies such as ICARDA, could contribute to an extremely useful field demonstration and capacity building function at all levels.

### 3.3.1.3. Integrated Pest Management (IPM)

As an example of good agricultural practices (GAP), the control against pests and diseases, together with the agro-technical aspects, is one of the main conditions for appropriate agricultural production. During recent years, integrated methods are being used against crop pests, paying attention to the ecological dimension of the productive system utilized. Among the modern methods is the biological control, in which entomophages are used to protect the production.

In this respect an FAO TCP project on IPM is planned to start in April 2010, where it will also assist in the identification of the characteristics of the required biological laboratories. This would be particularly useful for grape production, where the only method against *Fillocsera* is growing American stock seedlings. In fact, since 1925 *Fillocsera* has destroyed a large part of grape yards in Azerbaijan. The simple chemical control method is not effective against *Fillocsera* because it lives in the roots of the grapes. FAO could also support the creation of a Grafting Unit for producing seedlings of American varieties and could train and support private grafting specialists so as to obtain high quality grapes and wines.

### 3.4. <u>Strengthening the Policy and Institutional<sup>18</sup> Framework for Agriculture and Rural</u> <u>Development</u>

3.4.1. Improve the legal basis in natural resource management (e.g.: land tenure, integrated water resource management, fisheries and aquaculture and livestock)

### 3.4.1.1. Land Resources Management and IPM

Also in relation to the points on water and forest resource management and on IPM, FAO can assist in strengthening IPM practices in Azerbaijan by:

>helping in updating legislation, regulations and registration mechanisms;

- reviewing enforcement infrastructure with a view to making recommendations for improvements in human and technical capacity;
- reviewing pesticide life cycle management and addressing weaknesses to ensure compliance with the International Code of Conduct on the Distribution and Use of Pesticides; iv) assisting in the elimination of obsolete pesticide stockpiles and working towards compliance with the Rotterdam and Stockholm Conventions.

### 3.4.1.2. Land tenure rights

There is a general agreement on the need of secure land titles for improving farmers land use, especially on the medium and long-term. For this reason, the Government of Azerbaijan gave a very high priority to the Land Reform Law which in July 1996 concluded with 23.7% of

<sup>&</sup>lt;sup>18</sup> Strengthening the institutional framework, in addition to the assistance to strengthen the legal framework which is focusing on legislative aspects, also includes improved functioning of existing institutions and services which, as proposed in this Draft NMTPF, will be done through capacity development in a number of areas, among which the ones mentioned in text such as seed certification, food safety, rural finance, marketing, water management, curricula development, etc.

land under the special property of municipalities, 57% of private property and 19.3% of special public property. Today, almost 3.5 million people benefited from such a reform.

<u>*I*</u>The cadastral work is strictly linked to the approach selected, criteria for valuing the land, utilization of different field-level, cartographical and geographical techniques and tools, etc. Despite the advancement in most developed countries in the cadastral techniques and tools and related taxation systems, and the urgent need for such a system in Azerbaijan, the situation up to now has not much evolved. The priority activities should be as follows:

- Establish the type of organization requested for collecting the information necessary for creating a full fledge state land cadastre, involving Government and Municipalities;
- Foresee from the beginning the future access to and use of cadastral information by citizens;
- > Establish the typologies/categories of land use to apply for land valuing;
- Based on the Land Reform Law, prepare for the issuance of legal land titles to farmers and forest dwellers and promote a campaign for voluntary association and/or land consolidation among small farmers and forest communities;
- > Establish an open databank on land titles and cadastral information.

FAO, possibly, in conjunction with other partners, can support the State Committee of Land and Cartography with a project for implementing a pilot land cadastre and land register, including legal assistance for the normative and taxation aspects. The new cadastre will also include forest users and forest communities.

### 3.4.1.3. Land Consolidation

Once sufficient clarity with regards to cadastre and land titles (property rights) is established, FAO could support the State Committee of Land and Cartography in developing a national land consolidation strategy or program, including a pilot land consolidation scheme. Successful examples exist in other countries of the Region, e.g. Lithuania, Serbia, etc.

### **3.4.1.4.** Water Resource Management<sup>19</sup>

Complex land-reclamation activities have covered about 610,000 ha of irrigated lands, even if the main part of on-farm canals, equivalent to 72% of their total length, are earth canals subject to high water losses. Considering the limited water resources available in the country, the sustainable development of the agricultural production can only be achieved by effectively and economically utilizing modern irrigation techniques and technologies, including building new irrigation and drainage systems and water reservoirs and promoting afforestation and reforestation of upland areas so as to enhance the infiltration of rainfall and saving of fresh water resources.

Therefore, FAO assistance would be essential for: i) the joint design with water user associations of more adequate water distribution and application systems and irrigation

<sup>&</sup>lt;sup>19</sup>Azerbaijan has a very antique tradition in irrigation. The total cultivable area in 2008 was of almost 4.8 m ha, while the irrigated lands covered 1.4 m ha, even if soil and climate conditions could enable to expand this area to 3.0-3.5 m ha. At present, only about 1334,6 thousand ha are under irrigation in the country, and due to complex climatic and soil features, about 90% of the annual crops agricultural production is produced in these irrigated lands.

regimes for different crops, ii) applying methods to minimize water losses at field level and assisting the Open Joint Stock Company (OJSC) for Amelioration and Water Affairs and local management offices in improving the management of the irrigation systems at the higher level, as well as iii) designing and carrying out studies on adequate water management techniques and on potential areas for irrigation expansion.

### 3.4.1.5. Fisheries and Aquaculture<sup>20</sup>

The sector is characterised by the following basic problems and difficulties preventing its effective development:

- The fishery enterprises and facilitating services to the sector have been in decay since 1991, apart from a few exceptions. Rehabilitation of the fisheries infrastructure and the organizational and facilitating services that should support the sector is a slow process which requires major investments.
- Capture fisheries management, using integrated approaches to fisheries management (including the ecosystem approach), are not established in Azerbaijan causing structural disproportions in the fishery sector.
- Decreases in the stocks of aquatic bio-resources, in particular of commercially valuable species (first of all sturgeon) in the Caspian Sea occur at rates that are faster than the efforts made by the State towards protection and reproduction of aquatic bio-resources.
- Legal and policy frameworks that address capture fisheries, aquaculture and market related issues for fish and fisheries products are not up-to-date, absent or insufficient and not in-line with the modern requirements of the sector, constraining its sustainable development.
- Aquaculture production and processing technologies used in Azerbaijan are generally outdated, causing the country to lose market share in domestic as well as international markets for fish and fisheries products.
- The deterioration and related depreciation and obsolescence of physical infrastructures used for fisheries and aquaculture, caused by disinvestments, bad maintenance and lack of access to financial services for repair and modernization, has resulted in a fall in production and an orientation towards the export of raw (unprocessed) fish products.

The sustainable development of capture fisheries and aquaculture require a number of measures, which include among others, the following:

- Improvement of the legal and policy frameworks for fisheries and aquaculture and introduction of a series management system that applies modern standards.
- Realisation of concerted actions of the public and private sector active in fisheries to settle basic problems of the sector and ensure profitable and sustainable development.
- Increased coordination at the state, regional and municipal levels of actions directed to the maintenance of and the sustainable development of the fisheries sector in Azerbaijan.
- Design, introduction and application of modern, low-cost and effective stock assessment methodologies in the Caspian basin, with the aim to better inform fishery managers and enable them to guide the fisheries activities better towards a more responsible exploitation of the available aquatic bio-resources.

<sup>&</sup>lt;sup>20</sup>The fisheries sector (including capture and culture) of Azerbaijan has collapsed after independence from the Soviet Union in 1991. While total production of fish and fishery products was over 40 thousand tonnes in 1991, it decreased to only 3 thousand tonnes in 2007. Together with this decrease also income earned and employment in the sector decreased dramatically.

- In order to turn the fisheries and aquaculture sector in Azerbaijan again into a profitable sector of the economy, FAO is ready to provide technical assistance and capacity building in the following priority areas:
- i) Legal and policy framework development for aquaculture.
- ii) Capacity building of entrepreneurs and farmers on small-scale aquaculture development (including hatcheries, nurseries and grow-out facilities).
- iii) Development of a national plan of action to combat Illegal, Unregulated and Unreported (IUU) Fisheries in Azerbaijan.<sup>21</sup>

### 3.4.1.6. Veterinary Services

The general situation of animal health in Azerbaijan involves a certain number of issues such as the FMD situation, the required vaccine coverage, the need for improved infrastructure to protect Azerbaijan from diseases such as ASF that came across the borders recently or the insufficiencies in the veterinary public health (whether zoonoses or food/slaughterhouse inspection).

To start answering to some of these challenges and at the request of the State Veterinary Department of MoA, FAO will assist the Veterinary Department. The formulation of a new TCP project to review the existing veterinary legislation has been initiated. It will consult with government counterparts on animal health situation, understand the division of responsibilities among relevant ministries, and the legal environment for the enactment of new legislation on animal health, animal welfare, the delivery of veterinary services and the control of veterinary drugs. In consultation with the FAO Legal Office, international and national experts will be deployed to accomplish the task and prepare a draft legislation covering the subject areas listed above.<sup>22</sup>

### 3.4.2. Improved Seed Certification System

In spite of the approval of a new decree on Seed-growing, the previous USSR forms of seed certification are still in use in the country. Seed certificates can only be provided by the State Seed Inspection, while the private seed-growing system is not yet sufficiently established. The offices of the State Seed Inspection are decentralized at Rayon level and do not dispose of adequate buildings and equipment. On the other hand, National and Regional Seed Associations are not established at Rayon level. Hence, a new *ad hoc* mechanism should be prepared for the certification of imported and exported products and for the recognition of the new certification system in countries having diplomatic and economic relations with Azerbaijan.

At the same time, the national certification system in Azerbaijan should be improved according to international standards and both production entities and the Government strongly require FAO assistance for learning from the European experience both for imports and exports of agricultural products as well as for certification of seeds and seedlings.<sup>23</sup> In this respect the exchange of practices with France according to the ISO system is not

<sup>&</sup>lt;sup>21</sup> Actions such as the formation and empowerment of fishermen's organizations (see section 3.1.1 above), the development of a national plan to combat IUU fishing and some aspects of capacity building in aquaculture (listed as priority areas for FAO technical assistance) will be covered by the recently started 5-year FAO/Turkey Trust Fund project "Central Asia Programme for Fisheries and Aquaculture Development - FishDev Central Asia", GCP/RER/026/TUR, to which Azerbaijan can decide to participate.

<sup>&</sup>lt;sup>22</sup>An FAO mission has recently visited Azerbaijan to assist in the above aspects.

<sup>&</sup>lt;sup>23</sup> For example, seedlings of virus-free apple varieties (M-9 and M-106 stocks) were grown in the framework of the Frazer Project in Guba Rayon, starting in 2003 with 1.6 ha and now increased to 200 ha. Farmers of several other Rayons try to grow such kind of orchards and distribute seedlings to other regions.

sufficient and should be complemented with other partnerships with countries such as Italy, Japan and England.

On the other hand, it should be recalled that guaranteeing farmers' access to quality seeds can only be achieved if there is a viable seed supply system to multiply and distribute the seeds of plant varieties that have been produced and/or preserved. Agricultural policies aimed at achieving food security must emphasize seed supply system strategies that will ensure the availability and access for farmers to quality seeds of locally-adapted varieties in a timely and affordable fashion. In addition, it would be necessary to develop a regional capability to restore seed systems in response to periodic disasters and emergency situations.

More than 90% of farmers in Azerbaijan are either small-scale commercial farmers, who have to sell their surplus production to the market, or subsistence farmers who grow crops for their own needs. Large commercial farms are few and dispersed in the country. This situation complicates the distribution and marketing of seeds and planting material. One of the major reasons why improved seeds often fail to reach farmers on time are the difficulties related to distribution in remote, often hilly and mountainous areas. At present, seed marketing infrastructure is not developed to a sufficient level in Azerbaijan. In addition, the country lacks agricultural service centres and cooperatives that could assist in the distribution and marketing of seeds and planting material.

All these issues will be taken into account in case FAO will be required to assist Azerbaijan in this field.

### 3.4.3. Capacity Development in access to credit/finance and investment feasibility analysis in agriculture and rural development

Recent studies conducted by FAO show that one of the main constraints to agricultural growth is the poor access to finance and investment: these are major barriers to increasing competitiveness, trade, and creating new jobs in Azerbaijan. Highly perceived risk, excessive collateral requirements, and a limited range of financial products exacerbate this problem. Many businesses have limited experience and success in getting the finance they need to expand their companies.

There is a very clear and common agreement on the fact that Azerbaijan requires a continued economic diversification of the non-oil sector which, in turn, requires the development of financial markets to channel accumulated savings to their most efficient use. However, most money in the non-oil sector presently circulates outside the banking sector. In 2006, almost 70% of total investment in non-oil enterprises was financed through personal savings, while bank credits funded only 7.5%. This is consistent with the large size of Azerbaijan's cash economy, where more than 60% of money in circulation is outside the banking sector. In this area it should be recalled that Credit Unions, where they exist, cannot accumulate savings but can only provide credit. Thus there is a major legal obstacle in the accumulation of savings.

On the other hand, there is a high demand and number of interesting opportunities for financially and economically profitable investments in new plants and equipment. Much of the orchards, storage facilities, machinery, and equipment in Azerbaijan is old and becoming obsolete, and entrepreneurs would like to invest but do not have the capital. World-wide experience has demonstrated that directed, subsidized government credit lines are not the solution for making access to credit sustainable. Most farmers and processors are facing huge problems of access to finance and credit at low rate and several studies show that one of the main reasons for it is that farmers and entrepreneurs do not have an adequate approach to these issues, including the fact that usually they do not practice any investment

feasibility analysis and do not have the capacity to prepare and submit to the banks a good business plan.

This is an area where FAO has developed a large experience and know-how<sup>24</sup> and it is suggested to carry out an in-depth analysis of present gaps and opportunities of agricultural credit and insurance systems and identification of possible improvements to design and implement capacity building activities both for farmers and processors on business planning, appraisal work, cost/benefit analysis, investment feasibility analysis and investment planning.

### 3.4.4. Improved Marketing schemes

Azerbaijani exports are often sold in small shops and open markets where quality standards, packaging, and brand names are not very relevant. This situation is likely to change over time with the growth of supermarkets linking retailers more directly with producers. Among other, this will require a substantial upgrading of quality control and packaging. Today, most export sub-sectors send their products to Russia. Although this is currently very profitable, there are certain risks involved, including a possible change in Russia's trade policies and the depreciation of the ruble, which has resulted in Azerbaijan's exports becoming less competitive, especially since some other countries competing on the Russian market also have allowed their currencies to depreciate.

In any event, it is important that Azerbaijan begin to look toward market diversification and particularly the possibility of exporting more to the European Union. This is an important way of hedging against risks, especially when a country is as dependent as Azerbaijan on one destination only for its non-oil exports.

But moving increasingly towards the European market will require upgrading quality standards, better packaging and a number of other changes in which FAO and other donor organizations can be of assistance, particularly in improving marketing schemes and organizing capacity building activities on marketing skills.

### 3.4.5. Capacity Development in Food Safety

The food control system in Azerbaijan is weakened by existence of fragmented legislation, multiple jurisdictions and weaknesses in surveillance, monitoring and enforcement.<sup>25</sup> Also, the legislation, regulations and standards on food safety issues are outdated, and the methodology and programmes for compliance and enforcement, which includes food laboratories do not always correspond to international requirements. There is a need for a fundamental shift from the former state-controlled system, to a more preventive approach to food safety, where the producer has primary responsibility for the food they produce.

Organization of official controls to assure food safety, and institutional and operational issues is currently under the control of 8 different agencies within 6 ministries and committees. These entities have good experts, with experience in implementing official controls for food safety. However the effectiveness of the total system is hampered due to lack of clarity in the mandates of the agencies, with some overlappings. Inspection and certification mechanisms are not harmonized and the outdated soviet system is still used - which places many additional requirements on food businesses. Furthermore, coordination and communication

<sup>&</sup>lt;sup>24</sup>Such as the user-friendly toolkit RuralInvest developed to allow field technicians and local entrepreneurs to analyse the general and detailed feasibility of a rural and agricultural investments (see <u>www.fao.org/tc/tci/why**invest**inagricultureandru/en/</u>).

<sup>&</sup>lt;sup>25</sup> These include: the State Veterinary Service of the Ministry of Agriculture: the State Phyto-sanitary Service of the Ministry of Agriculture; the State Centre for Sanitary and Epidemiological Control of the Ministry of Health; the State Office for Control of Consumer Market of the Ministry of Economic Development; the Consumer Commodities Expertise Bureau of the Ministry of Economic Development; the State Committee for Standardization, Metrology and Patents; the State Customs Committee; the Ministry of Environment.

between agencies is weak and there is no single point or mechanism in place to gather, summarize and analyze relevant information from all concerned bodies. The overall system of food control is typical of a country in transition, is not preventive, and it is still based on reactive mechanisms. Improvements are also needed to ensure that an integrated food chain approach is applied, as food production, processing, transportation and distribution, including retail and home consumption, are usually perceived as separate activities.

Food control measures are implemented according to different Laws.<sup>26</sup> Still, it should be mentioned that there are several voids, gaps and parallelism in these Laws which would suggest the requirement to review existing laws to examine their suitability to assure safe, quality foods, and concurrently the roles and responsibilities of different Ministries and Offices involved in official food control activities. Further improvements will also be required to implement and eventually enforce food laws, and to ensure the capacity of food producers to comply with food law and regulations.

Lack of information and awareness among key stakeholders is an additional challenge which needs to be addressed. This includes the deficiency of knowledge on food safety issues among consumers which is one constraint to achieving higher levels of food safety. Also, the protection of consumer's rights is not well organized. Therefore the public control over the state bodies controlling food safety is minimal. Also, the staff of the state authorities does not have sufficient modern knowledge to carry out the management of food control in accordance with international requirements. Limited capacity among food producers, processors and food businesses to effectively implement GAPs, GHP, and HACCP system (lack of information, lack of infrastructure) is also a constraint.

The Government of the Republic of Azerbaijan has identified food safety as a main priority area and the need to modernize the official food control system and to harmonize with international norms and requirements. FAO's contribution to the following outputs could play a significant role to overcome the challenges outlined:

- analysis of national food safety legislation, policy and regulations and preparation of a draft text for selected legal instruments to be amended/updated in order to harmonize with international requirements;
- propose improved safety net systems as well as food safety norms and rules contributing to food security;
- strengthen the national programme for Codex Alimentarius activities (including the Codex Contact Point and National Codex Committee) and use of Codex standards as a basis for the harmonization of national food standards;
- promote stakeholders discussion on identification of priority issues to be addressed to modernize the system and ensure a risk-based, preventive approach to food safety, (included in a Food Safety Strategy);
- training on GHPs, and the Hazard Analysis and Critical Control Points (HACCP) System, including the development of necessary guidelines for implementation, and strengthening the food inspection system;
- increase the scientific basis for food safety risk management decisions and the knowledge of the risk analysis framework;
- analysis of existing laboratory capacity and training on management of laboratories;

<sup>&</sup>lt;sup>26</sup> These are : The Law on Foodstuffs (# 759-IQ of November 18, 1999, with addendums and amendments under the laws #219-II QD of November 23, 2001, #389-II QD of December 3, 2002, and #538-II QD of December 5, 2003); The Law on Sanitary and Epidemiological Well-being (#372 of November 10, 1992); The Law on Veterinary ( #825 of June 17, 1994 with addendums and amendments under the law # 584-IIIQD of April, 2008); The Law on Phytosanitary Control(#102, III Q of May 2006).

- training/study tours on HACCP system for staff of the state food control entities;
- training and study tours for staff of State TV for producing quality programs/information on food safety issues;
- preparation and launch of public information on food safety and a communication strategy;
- preparation of proposals for the introduction of food security and food safety issues in the curricula of secondary schools and universities; preparation of basic principles and juridical acts for implementing the GAPs, GHPs and HACCP System.

### 3.4.6. Capacity Development in Integrated Water Resource Management

Two scientific research centres and one institute involved in water issues are functioning under the Azerbaijan Amelioration and Water Affairs Open Joint Stock Company in order to ensure scientific/technical development to water use at farm level. However, weak logistics and internal organization of these institutes do not allow them to formulate and conduct projects along the modern international standards.

Based on Government request, FAO could consider helping these organizations in institutional capacity development and facilitating linkages with other institutes at international level so as to benefit from international experience in applying water resource integrated management methods in Azerbaijan and providing methodological assistance in order to elaborate projects on water resources use and conservation and organize specialists' trainings in this field.

### 3.4.7. Capacity Development in Data Collection/Analysis in the areas of agriculture, rural development and food security

Agriculture in Azerbaijan is much diversified, both in terms of type of products and producers. Cereals, fruits, vegetables and grapes are the most developed products in Azerbaijan. The producers include about 3.4 m people having a land share right and about 842,000 individually owned farms. Some owners operate as physical persons, some as cooperatives and others as family farms. In 2008, Azerbaijan produced about 3 m MT of cereals, 1 m MT of vegetables and melons, 1.1 m MT of potatoes, and 800,000 MT of fruits. The collection and analysis of adequate and updated information on these productions and their distribution channels is developing through internet.

Still, as seen before, there is an important issue related to food items, due to the fact that these items, based on the State Food Safety Program, are under the responsibility of different public entities. Hence, a mechanism for the adequate coordination and harmonization of information and data collection, analysis and systematization remains a necessary condition.

More in general, in addition to what is already planned under the already approved FAO/Turkey Fisheries regional project and the proposed Animal Identification and Forest Assessment, the very wide area of agriculture, animal husbandry, forestry, fisheries and rural development show an urgent need for developing more efficient, timely and accurate systems for statistical data collection and analysis, also utilizing useful experiences originated in other developed and in transition countries.

FAO has a large experience and comparative advantages in this type of endeavors, also related to the new cycle of agricultural censuses planned in many countries and regions during 2010. In particular, it is proposed that FAO at least engage in: i) one more farm data survey in 2010, and (ii) further training on farm data monitoring system to the Baku Agricultural Economics Institute team involved in the TCP project, with additional participants from MoA and the State Statistical Committee; (iii) an assessment of the food and agriculture

data collection process in the country, with the objective of underlining the need for the completion and harmonization of the different national statistics and datasets on food and agriculture.

# 3.4.8. Improved Monitoring and Evaluation (M&E) systems, projects/programs coordination and experience exchange and cross-sector coordination

Different development projects are being implemented or have been implemented under Government or international program/projects in rural areas of Azerbaijan. It is observed that most times project designers and implementers don't collaborate with each other and there are high risks of duplication in the same regions leading to non-effective use of rural investments. Monitoring and evaluation of program/project results are mostly done only by internally-based staff and concentrate on project activities more than on results. In addition, this situation in some cases prevents project implementers from having the sufficient flexibility for addressing possible urgent needs emerged during project implementation.

The followings can be suggested as possible activities for FAO assistance:

- Support to the design and development of a database and a system of data/information collection and analyses for programs/projects;
- Support to the development of RBMS (Results Based Monitoring System) linked to the monitoring of results of programs/projects and representing an effective base for designing new proposals on the base of emerging priorities;
- Improve cooperation between different institutions/agencies implementing rural development program/projects through the organization of regular joint meetings/workshops for exchange of experience, lessons learned and new ideas.

Linked to the above cross-cutting issue of M&E, there is an urgent need to design/implement mechanisms for cross-sector coordination, which is one of the key-elements of good governance.

In terms of capacity development, it should be stressed that the different types of activities mentioned in this document will address, as much as possible, not only the technical level but also the functional capacity areas, such as the capacity to take effective and strategic decisions, improve sector governance & management or undertake organizational change processes. In fact this type of broader design in the area of capacity development has proven to increase the chances of sustainability of the capacity development activities carried out.

# 3.4.9. Curricula development (e.g. in graduate and post-graduate courses in agriculture, animal husbandry, forestry, agricultural economics, rural development, etc.)

Lack of qualified specialists is a common constraint in rural sector and agriculture. Especially, young generation view the rural sector and agriculture as less attractive. Most specialists currently involved in the sector are aged over 40-45 and most of them lack the information, skills and capacities related to modern methods, know-how and technology.

The main education institution providing high education for agricultural specialists - the Azerbaijan State Agrarian University - has adopted an interesting strategy to provide education services based on the new needs of the developing economy and technology.

Still, there is a need of organizing specific capacity building activities for both personnel (teachers) and students, including organizing exchange visits for transferring effective practices and knowledge for students and graduates.

FAO has been requested to assist the Government (MoA) in curricula development in graduate and post-graduate courses in rural sector, agriculture, animal husbandry and

forestry and, based on the current and future challenges of these sectors and an assessment of education needs, could assist through a TCP project. Under these new curricula, qualified international specialists could be involved by FAO for providing specific training courses for increasing knowledge on new applied methods, technologies and applied effective practices. In addition FAO, in possible partnership with other donors, could organize local, regional/subregional and international study tours involving graduates and post-graduates from different institutions, organizations and the private sector.<sup>27</sup>

### 3.5. Capacity Development for the design, operation and maintenance (O&M) of Rural Economic Infrastructure

### 3.5.1. Post-harvest technologies, such as Storage and Cooling Facilities

Azerbaijan's major cash crops are grapes, cotton, tobacco, citrus fruits, and vegetables and all of these, except cotton and tobacco, are dependent upon the existence of an effective cold chain to be economically viable and sustainable. It is estimated that approximately 40% of the value of these crops is currently lost due to the lack of adequate cold chain facilities. Constraints in the cold storage and warehousing sector in Azerbaijan go beyond this basic lack of storing capacity, but also include insufficient know-how on how to build, run and maintain a storage facility (preventive maintenance schedules and daily recording of cold chambers temperatures and humidity controls also seem to be missing). Due to these problems of mismanagement and weak marketing capacities, existing warehouses and cold storage facilities often remain empty.

Given the importance of the cold storage sector in Azerbaijan, especially for developing a full fruits and vegetables value chain, FAO could have a major impact by providing technical assistance on locating, and assisting in the training in O&M of warehouses and cold storage facilities. A series of courses directed specifically at individuals involved in the operation and maintenance of cold chain facilities would also be essential including as beneficiaries cold storage managers, maintenance and operations personnel.

### 3.5.2. Feed Mills

Processing more cattle breeding products depend on establishing a more solid feed base. Currently, the feed processed in Azerbaijan is not sufficiently tested for quality, is not processed according to available best technologies and is not balanced for its food content, so that feed meal is not evaluated and priced in relation to its quality traits. At the same time there is a serious lack of equipment to process balanced mixed feed meals. The ones which recently started operating are in Ganja city and Balakan region, plus 4 additional small mixed feed processing establishments. Despite the shortage of feed meal, enough investment are not made for new mixed feed meals factories.

In this important area, FAO could assist in designing and carrying out technical, financial and economic analyses (RuralInvest) so as stimulate new investors in at least five regions of the country.

<sup>&</sup>lt;sup>27</sup> At the request of MoA, an FAO mission has recently provided assistance to the Azerbaijan State Agrarian University, and in particular to its Zoo-Veterinary and Commodity Department.

#### Annex 1

### ABBREVIATIONS AND ACRONYMS

AGNS AGPS AWA (OJSC) CCA COSOP CPS ENP/AP ESS EU FAO FAOR GAP GDP GEF GHPs GMPs HACCP IACS IFAD ISTA LPIS MFA MoA MDGS MED MENR NGO NLRA NMTPF OECD OSC SDC SECO SEC SDC SECO SEC SDC SC SDC SC SDC SC SDC SC SDC SC SDC SC SDC SC SDC SC SDC SC SDC SC SDC SC SDC SC SDC SC SDC SC SDC SC SDC SD	FAO Food Quality and Standards Service FAO Seed and Plant Genetic Resources Service Amelioration and Water Affairs (OJSC) Common Country Assessment IFAD Country Strategic Opportunities Program Country Partnership Strategy (WB) European Neighborhood Policy / Action Plan FAO Statistics Division European Union Food and Agriculture Organization of the United Nations FAO Country Representative good agricultural practices Gross Domestic Product Global Environmental Facility Good Hygienic Practices Good Manufacturing Practices Hazard Analysis and Critical Control Point Integrated Administration and Control System International Fund for Agriculture Development International Seed Testing Association Land Parcel Identification System Ministry of Foreign Affairs Ministry of Foreign Affairs Ministry of Economic Development Ministry of Ecology and Natural Resources Non-Governmental Organization FAO Land Tenure and Management Unit National Medium-term Priority Framework (MoA/FAO) Organization for Economic Cooperation and Development Open Stock Company Swiss Agency for Development Agency Swiss Agency for Development Agency Swiss Agency for Development Agency Swiss Agency for Development Agency Swall and Medium Enterprises Sustainable Production Intensification Sanitary and Phyto-sanitary measures FAO Investment Centre Division, Technical Cooperation Dept. FAO Technical Cooperation Program FAO
TCPF	FAO Technical Cooperation Program Facility
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNRC	United Nations Resident Coordinator
USAID	U.S. Agency for International Development
UTF	Unilateral Trust Fund
WB	World Bank

Annex 2

### UNDAF OUTCOMES/OUTPUTS AND NMTPF PRIORITY AREAS

UNDAF	process		NMT	PF process
Outcome 1: Economic Development		Proposed Thematic Priority		Proposed Priority TA Area
OUTCOME 1.1: OL National policies and institutions are strengthened to increase private sector competitiveness, remove	OUTPUT 1.1.3 National laws and regulations on standardization and conformity are adapted to fully comply with international regulations	A3.1.and and and adapted to ith egulations3.1.Environment for Investments in Agriculture, Livestock, Forestry and Fishery development1.1.3.4 Strengthening the Policy and Institutional Framework for Agriculture and Rural Development3.4.4 apacities of vate prividing erprises in her quality3.1. Enabling Environment for Investments in Agriculture, Livestock, Environment for Investments in Agriculture, Livestock, Environment for Investments in Agriculture, Livestock, 	3.1.1	Value Chain Organization and Contract Farming (also related to animal production, forestry, fisheries and aquaculture and beekeeping)
			3.4.1	Improve the legal basis in natural resource management (e.g., land tenure, integrated water resource management, fisheries and aquaculture and livestock)
shocks.			3.4.2	Improved Seed Certification System
			3.4.5	Capacity Development in Food Safety
public and private institutions providing support to enterprises in delivering higher quality			3.4.7.	Capacity building in data collection/analysis in the areas of agriculture, rural development and food security
			3.4.8.	Improved Monitoring and Evaluation (M&E) systems, projects/programs coordination and experience exchange and cross-sector coordination
	Institutional capacities of public and private		3.1.1.	Value Chain Organization and Contract Farming (also related to fisheries and aquaculture and beekeeping)
	support to enterprises in delivering higher quality competitive products are		3.1.2.	Strengthening Extension service providers (ESP), particularly ensuring better stakeholder linkages and through training to service providers and farmers
		Strengthening the Policy and	3.4.2.	Improved Seed Certification System
		Institutional Framework for Agriculture and Rural Development	3.4.3	Capacity Development in access to credit/finance and investment feasibility analysis
			3.4.4	Improved Marketing schemes
			3.4.5	Capacity Development in Food Safety
			3.4.6	Capacity Development in Integrated Water resource Management
			3.4.7	Capacity Development in Data Collection/Analysis in the areas of agriculture, rural development and food security
			3.4.8	Improved Monitoring and Evaluation (M&E) systems, projects/programs coordination and experience exchange and

				cross-sector coordination
			3.4.9	Curricula development (e.g. in graduate and post-graduate courses in agriculture, animal husbandry, forestry, agricultural economics, forestry, rural development, etc.)
OUTCOME 1.2: National strategies, policies, and capacity to address regional and gender disparities in decent work opportunities are strengthened, with a focus on increasing the ability of vulnerable groups to manage and	OUTPUT 1.2.5. Rural employment creation and income diversification are integrated into agricultural and rural development policies, programmes and partnerships	3.1. Enabling Environment for Investments in Agriculture, Livestock, Forestry and Fishery Development	3.4.1	Improve the legal basis in natural resource management (e.g.: land tenure, integrated water resource management, fisheries and aquaculture and livestock)
mitigate risks.		3.3. Sustainable	3.3.1	Organic Farming
		Equity-driven	3.3.2	Conservation Agriculture
		Agriculture Production and	3.3.3	Integrated Pest Management
		Income Generation		(IPM) e.g. <i>fillocsera<sup>28</sup></i>
		3.4 Strengthening the Policy and Institutional Framework for Agriculture and Rural Development	3.4.3 3.4.4	Capacity Development in access to credit/finance and investment feasibility analysis Improved Marketing schemes
		3.5 Capacity Building for the design, operation and maintenance (O&M) of Rural Economic Infrastructure	3.5.1	Post-harvest technologies, such as Storage and Cooling Facilities
			3.5.2.	Feed Mills
	OUTPUT 1.2.8 Capacities in rural development for IDPs, refugees and local farmers are enhanced	3.1. Enabling Environment for Investments in Agriculture, Livestock, Forestry and Fishery development	3.1.2	Strengthening Extension service providers (ESP), particularly ensuring better stakeholder linkages and through training to service providers and farmers
OUTCOME 1.3: Relevant national strategies, policies, and capacities strengthened to address environmental degradation, promote the green economy, and reduce vulnerability	OUTPUT 1.3.7 Increased integration of Azerbaijan in international networks that work to strengthen national capacities and improve forest policy formulation and implementation	3.4 Strengthening the Policy and Institutional Framework for Agriculture and Rural Development	3.4.2 3.4.5	Improved Seed Certification System Capacity Development in Food Safety

to climate change				
	OUTPUT 1.3.8 Preparation and approval of National Forest Programme and forest legislation amendments completed as a result of participatory discussion processes	3.2 Protection and Management of Natural Resources	3.2.4	Forest Assessment and National Forest Programme
	OUTPUT 1.3.14 Pesticide management is improved and the environment and public health are preserved from adverse effects of	3.2. Protection and Management of Natural Resources 3.3.	3.2.1	Protection of Animal and Plant Genetic Resources
	pesticides	Sustainable Equity-driven Agriculture Production and Income Generation	3.3.1 3.3.2 3.3.3	Organic Farming Conservation Agriculture Integrated Pest Management (IPM) e.g. <i>fillocsera</i>
Outcome 3:	Governance			
OUTCOME 3.2: Efficiency, accountability and transparency within public administration is enhanced through capacity development of State Entities, including gender sensitive approaches	OUTPUT 3.2.1. Institutions at the central and local level are enabled to collect, update, analyze and manage appropriate disaggregated and socio-economic data related to food security to support strategic planning and coordination.	3.1. Enabling Environment for Investments in Agriculture, Livestock, Forestry and Fishery development 3.4 Strengthening the Policy and Institutional framework for Agriculture and Rural Development	3.4.1 3.4.7. 3.4.8. 3.4.9.	Improve the legal basis in natural resource management (e.g., land tenure, integrated water resource management, fisheries and aquaculture) Capacity Development in Data Collection/Analysis in the areas of agriculture, rural development and food security Improved Monitoring and Evaluation (M&E) systems, projects/programs coordination and experience exchange and cross-sector coordination Curricula development (e.g. in graduate and post-graduate courses in agriculture, animal husbandry, forestry, agricultural economics, rural development, etc.)

### Selected elements on FAO projects and programs in Azerbaijan

At the end of 2009 FAO was implementing in Azerbaijan 2 national TCPs, one TCP facility, one Trust Fund project, and was participating in several regional and global projects. Selected elements on the above projects are as follows:

### **Ongoing projects**

- TCP project "Strengthening utilization of plant genetic resources in Azerbaijan through enhancing conventional plant breeding and associated biotechnology capacity", NTE 06/11, Budget USD 385,000

- TCP project "Food safety capacity building" Budget: USD 370,000, Second Phase with NTE 12/10, Budget: USD 271,918

- TCP Facility, NTE 03/10, Budget: USD 79,613, with 3 Components:
  - 1) Assessment of African Swine Fewer;
  - 2) Pasture and Grassland Management;
  - 3) Access to Land for IDPs
- "Capacity Building in Rural Development for Internal Displaced Persons (IDP) and Refugees in New Settlement Areas of Aghdam District - Azerbaijan"- GCP/AZE/003/SWI project co-funded by Switzerland, Budget: Phase I: USD 593,277; Phase II NTE 04/12, Budget: USD 1,750,000
- Regional programme for Fisheries and Aquaculture Development" GCP/RER/026/TUR NTE: 12/14, Budget: USD 1.499.500

### **Pipeline Projects**

- FAO/Turkey Partnership Programme: Regional Project for the "Management of Pesticides and Obsolete Pesticides in Central Asia and Turkey", Budget: US\$ 450,000
- FAO/Turkey Partnership Programme: Regional Project for the "Seed Sector Analysis and the Preparation of Regional Seed Master Plan", Budget: US\$ 250,000
- FAO/Turkey Partnership Programme: Regional Project for the "Capacity Development for Analysis and Strengthening of Agricultural Innovation Systems", Budget: US\$ 150,000
- FAO/Turkey Partnership Programme: Regional Project for the "Stewardship of Globally Important Agricultural Heritage Systems (GIAHS) in Azerbaijan and Turkey", Budget: USD 250,000
- FAO/Turkey Partnership Programme: Regional Project for the "Conservation Agriculture and Resource Conserving Technologies for Irrigated areas in Azerbaijan, Kazakhstan, Uzbekistan and Turkmenistan", Budget :US\$ 600,000
- TCP project "Sustainable management of pastures", planned to start at the beginning of 2010, Budget: USD 416,000
- TCP project on IPM, starting in April 2010 with NTE on 05/11, Budget: US\$ 292,583
- Regional TCP Facility, Azerbaijan included in a new component No. 3 for the Follow up to the establishment of "National Information Sharing Mechanisms on PGRFA", NTE 31/12/2009, Budget: US\$ 25,385
- Regional TCP project on "Improvement and Revival of Sericulture Industries in Eastern Europe and Central Asia"
- Regional TCP project on "Promoting Beekeeping in countries of Black Sea Economic Cooperation BSEC"