



# **COUNTRY PROGRAMMING FRAMEWORK (CPF) 2012-2016**

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**For Cooperation and Partnership between  
The Food and Agriculture Organization of the United Nations (FAO) and  
the Government of Mongolia (GoM)**

**ULAANBAATAR, MONGOLIA  
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**TABLE OF CONTENTS****Page**

PREAMBLE	4
FRAMEWORK AGREEMENT	5
LIST OF ABBREVIATIONS	7
I. INTRODUCTION	8
II. SITUATION ANALYSIS	9
A. THE NATIONAL CONTEXT	9
• Food security and nutrition	9
• Agriculture and related industries	10
• Value-chain in Mongolia	10
• Livestock breeding and related industries	11
• Natural resources and forest reserves	11
• Mongolian wildlife and fish stock	12
• Cross cutting impacts from climate change	12
B. REVIEW OF NATIONAL PRIORITIES AND POLICIES	13
C. NATIONAL MILLENIUM DEVELOPMENT GOALS (MDGs) and the UNDAF	16
• Poverty Reduction	16
• Gender	16
• Environment and Sustainable Development	17
D. GOVERNANCE SYSTEMS AND RELEVANT NATIONAL STAKEHOLDERS	17
III. FAO'S COMPARATIVE ADVANTAGES AND PRIORITY AREAS	18
IV. PROGRAMMING FOR RESULTS	22
V. KEY ASSUMPTIONS AND RISKS	26
VI. IMPLEMENTATION ARRANGEMENTS	26
VII. MONITORING AND EVALUATION	27
VIII. RESOURCE REQUIREMENTS AND MOBILISATION STRATEGY	27
IX. ANNEXES	28
A. CPF Priority Matrix	28
B. CPF Results Matrix (Part A)	31
C. CPF Results Matrix (Part B)	47
D. List of some past and on-going FAO projects in Mongolia	51
E. Dutch Disease: A key underlying issue for agricultural development in Mongolia	54

### PREAMBLE

The Country Programming Framework (CPF) for Mongolia 2012-2016 is the joint framework for strategic cooperation between the Government of Mongolia (GoM) and the Food and Agriculture Organization of the United Nations (FAO) in Mongolia. Channelled primarily through the Ministry of Industry and Agriculture (MoIA), and the Ministry of Nature, Environment and Green Development (MoNEGD), the CPF sets forth priority areas and activities for FAO's assistance in support of the attainment of the GoM's national development policy objectives in the fields of agriculture, fisheries, forestry, and natural resources.

The CPF is framed within the national development priorities articulated in the State Policy on Food and Agriculture (2003); the MDG-based Comprehensive National Development Strategy of Mongolia (2008-2021); the Action Plan of the Government of Mongolia; the State Policy Towards Herders (2009); the "Third Campaign for Reclamation" National Program for Development of Crop Production (2008-2010); the National Program for Food Security (2009-2016); and the "Mongolian Livestock" National Program (2010-2021). It is also consistent with the United Nations Development Assistance Framework (UNDAF 2012 - 2016); Millennium Development Goals (MDGs) and the global strategic objectives of FAO as articulated in the Organization's Strategic Framework, the Medium-Term Plan 2010– 2013; and the Programme of Work and Budget 2012– 2013.

The CPF defines in a measurable way, including financial resource needs, the kind of support that the government, civil society, and general public in Mongolia can expect from FAO during the plan period; thereby enhancing predictability and transparency of FAO's interventions in the country. The CPF is formulated in line with the principles of Results-Based Management (RBM) and therefore contains a Results-Based Matrix and a Monitoring and Evaluation (M&E) framework clearly articulating strategic areas of intervention, outcomes, outputs, and indicators for their measurement, to which all FAO activities in the country should contribute.

The framework underscores FAO's role as a lead United Nations technical agency in supporting agriculture and food security interventions which are critical in strengthening food security and reducing the need for relief and harmful coping strategies. It emphasizes the protection and rehabilitation of agricultural and livestock related livelihoods to ensure sustainable food security. It also aims to mainstream Disaster Risk Reduction (DRR) into agriculture, livestock, and natural resource management, based on agreed key principles of setting priorities, comparative advantage and stakeholder alignment.

The framework is also a tool for resource mobilization that presents to donors and all other stakeholders a clear and concise picture of what FAO intends to do for the next five years and the level of resources required to undertake such interventions. However, it must be noted that, a framework remains a policy statement of intent and the attainment of its purpose and objectives requires joint efforts through partnerships with all stakeholders.

## FRAMEWORK AGREEMENT

The Government of Mongolia hereinafter referred to as the "Government" and the Food and Agriculture Organization of the United Nations hereinafter referred to as "FAO";

Furthering their mutual agreement and cooperation for the fulfilment of the objectives stated in FAO's Strategic Framework and Medium-Term Plan 2010 – 2013; and the national development objectives stated in the State Policy on Food and Agriculture (2003); the MDG-based Comprehensive National Development Strategy of Mongolia (2008-2021); the Action Plan of the Government of Mongolia; the State policy toward herders (2009), the "Third Campaign for Reclamation" National Program for development of Crop production (2008-2010), the National Program for Food Security (2009-2016); and the "Mongolian Livestock" National Program (2010-2021) to which both parties are mutually committed;

Strengthening the respective roles of Government and FAO in the development of the agricultural, fisheries, forestry, natural resources management, and rural development sectors in Mongolia;

Cognisant of the comparative advantages and competencies of FAO in the said sectors vis-a-vis those of other stakeholders;

Consolidating and sharing experiences, best practices, and lessons learned from previous work of both parties in the sector;

Now agree as follows:

<b>Country</b>	<b>Mongolia</b>
<b>Title</b>	<b>Country Programming Framework (CPF)</b>
<b>Description</b>	Framework of priorities jointly selected by Government and FAO for their cooperation from 2012 to 2016.
<b>Priority Areas</b>	<p><b>CPF Priority Area 1:</b> Promotion of sustainable livestock development through improved quality, health, and productivity of livestock and increased pasture, feed, fodder, and water supply</p> <p><b>CPF Priority Area 2:</b> Introduction of environment-friendly technologies, better irrigation and rotation schemes, and crop diversification strategies to improve crop production</p> <p><b>CPF Priority Area 3:</b> Promotion of sustainable natural resource management as techniques for adaptation, mitigation, and management for the impacts of climate change</p> <p><b>CPF Priority Area 4:</b> Development of value chain: improvement of food products, food safety standards, and food marketing</p>
<b>Coverage</b>	Countrywide
<b>Ownership</b>	MoIA, MoNEGD and FAO
<b>Partnerships</b>	Ministries/Departments/Agencies of GoM, Development partners, UN Organizations, Private sector and CSOs/NGOs.
<b>Duration</b>	2012-2016
<b>Indicative Budget</b>	USD 432.30 million

Together, FAO and the GoM will increase focus on sustainable agricultural, fisheries, forestry and natural resources development results. To this end:

- a) Efforts and plans to strengthen core institutions, policies and strategies will be supported through approaches that are aimed towards capacity development;
- b) A transparent, country-led results framework and platforms will be adopted as a joint tool for FAO and Mongolia to assess performance based on a manageable number of outputs and outcome indicators drawn from the mutually agreed upon development priorities; FAO and Government will partner to develop and implement an Action Plan to enhance effective and efficient implementation of the CPF while allowing for monitoring of progress, and, where feasible, evaluation of impact, and to highlight strategic issues for policy decisions;
- c) FAO and Government will deepen efforts to ensure that joint assessment reviews are conducted during the implementation of the CPF that encourage the active participation of all stakeholders to the sectors covered by the CPF;
- d) FAO and Government will in partnership accelerate and deepen efforts to collect, disseminate, harmonize and make full use of data disaggregated by gender to inform policy decisions and guide investments, ensuring in turn that public expenditures are targeted appropriately to benefit both women and men;
- e) Mainstream gender equality and empowerment of women and youth in all programmes and projects developed and implemented under the CPF;
- f) Make full use of South-South and triangular co-operation, recognizing the success of these approaches to date and the synergies they offer;
- g) Promote and support the development of networks for knowledge exchange and co-ordination among South-South co-operation actors as a means of facilitating access to important knowledge and skills pools present in other developing countries;
- h) Support efforts to strengthen local and national capacities to engage effectively in South-South and triangular co-operation;
- i) Enable the participation of the private sector in the design and implementation of the CPF programmes and projects to foster sustainable development, growth and poverty reduction;
- j) In partnership develop innovative PPPs programmes and schemes to mobilize private sector investments for mutually beneficial CPF programmes and projects;
- k) Support national climate change policy and planning as an integral part of the CPF's programmes and projects; and
- l) FAO and Government will collectively endeavour to adhere to the ideals of the Paris Declaration on Aid effectiveness of ownership, harmonization, accountability, transparency and results based management.

FAO and Government of Mongolia hereby duly commit to assume joint ownership and implementation of the CPF 2012-2016.

On behalf of the Government of Mongolia



Battulga Khaltmaa  
Minister for Industry and Agriculture  
04.10.2012

On behalf of the Food and Agriculture  
Organization of the United Nations (FAO)



Percy W. Msika  
FAO Representative in Mongolia  
04.10.2012

## LIST OF ABBREVIATIONS

ADB	Asian Development Bank
GAFSP	Global Agriculture and Food Security Program
EU	European Union
CA	Census of Agriculture
CPF	Country Programming Framework
CSOs	Civil Society Organizations
EC	European Commission
ECD	External Cooperation Division
ERCU	Emergency and Rehabilitation Coordination Unit
FA	Forest Authority
FAO	Food and Agriculture Organization of the United Nations
FAOR	Food and Agriculture Organization of the United Nations Representative
GEF	Global Environmental Fund
GDP	Gross Domestic Product
GoM	Government of Mongolia
HACCP	Hazard Analyses and Critical Control Points
IAEA	International Atomic Energy Agency
IFAD	International Fund for Agricultural Development
JICA	Japan International Cooperation Agency
MCA	Millennium Challenge Account
MDG	Millennium Development Goals
MFAT	Ministry of Foreign Affairs and Trade
MOF	Ministry of Finance
MoI	Ministry of Industry and Agriculture
MoH	Ministry of Health
MoNEGD	Ministry of Nature, Environment and Green Development
MoSWL	Ministry of Social Welfare and Labour
MP	Member of Parliament
MNT	Mongolian National currency/ Tugrik
MSUA	Mongolia State University of Agriculture
MUST	Mongolia University of Science and Technology
NAEC	National Agricultural Extension Centre
NEMA	National Emergency Management Agency
NDS	National Development Strategy
NGO	Non-Governmental Organization
NPFS	National Program for Food Security
NSC	National Steering Committee
NSO	National Statistic Office
PPP	Public, Private Partnerships
SDC	Swiss Development Cooperation
SMEs	Small and Medium Enterprises
SPFS	Special Program for food Security
SSIA	State Specialized Inspection Agency
TCP	Technical Cooperation Program
TF	Trust Fund
UN	United Nations
UNCT	United Nations Country Team
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Program
UNEP	United Nations Environmental Program
UNICEF	United Nations International Children's Emergency Fund
UTF	Unilateral Trust Fund
VABA	Veterinary and Animal Breeding Agency
WA	Water Authority
WB	World Bank

## I. INTRODUCTION

Mongolia and FAO have shared a long history of cooperation since 1973 when FAO Mongolia was accredited through the FAO Office in China. In July 2009 a dedicated FAO Mongolia Liaison Office was established in Ulaanbaatar; with the FAO Representative in China accredited as its head. Mongolia has been receiving assistance from FAO in research, natural resources management, technology transfer, food and agriculture policy, livestock production systems management, emergency and post crisis management, forestry information, statistics, food security and nutrition, emergency response operations, crop production system management, and food quality and safety. Since 2000 FAO has allocated to Mongolia a total of USD 7,512,698 under 28 Technical Cooperation Programmes (TCP), roughly \$8,773,780 under 7 Trust Fund projects, and USD 158,488 for 15 Tele Food projects. All projects and technical support have been implemented with active collaboration from government counterparts. A comprehensive listing of past and on-going FAO projects is detailed in Annex D.

The preparation of the current, Mongolia's first, CPF was initiated at the request of the Government of Mongolia and was formulated under the leadership of Ministry of Industry and Agriculture (MoIA) and Ministry of Nature, Environment and Green Development (MoNEGD). A project steering committee was set up under MoIA, including representatives from MoIA, MoNEGD, and Ministry of Finance (MoF). A national CPF formulation team was put in place to conduct policy and situation analyses and draft the CPF under the guidance of a Working Group. Together, consultations were held with key line ministries and departments, concerned United Nations (UN) agencies, other development partners, and FAO's multi-disciplinary technical teams. The first draft of the CPF was discussed with the CPF Steering Committee and FAO offices in Beijing and Bangkok. A Stakeholders' Workshop in October 2011 followed, which led to the refining of the CPF results. A further version was again endorsed at the second Stakeholders' Workshop in January 2012. The final draft of the CPF was endorsed both by the Government of Mongolia and the FAO Regional office by February 2012.

The development of the CPF is based on the five new programming principles adopted by the United Nations Development Group (UNDG) as guidance for effective UN-supported country programming. These principles are:

- Human rights based approach
- Gender equality
- Environmental sustainability
- Capacity development
- Results based management

Each principle applies to FAO's engagement with, and support to, national development processes and frameworks, as well as its efforts in providing global public goods. These principles were fully reflected in the Rome Principles for Sustainable Global Food Security adopted in November 2009, which stressed the commitment to country-led development, interdisciplinary coordination and partnerships, capacity development, evidence-based policies and increased efficiency and effectiveness of multilateral institutions working on global food security.

In line with the international consensus on aid and development effectiveness; the CPF was developed in close connection with the UNDAF; outlining the strategic direction and results expected from cooperation between the GoM and the UN Country Team (UNCT) for the period 2012-2016. The UNDAF was signed in March 2011 and represents a collective response of the UN system to the national development priorities contained in Mongolia's Comprehensive National Development Strategy (NDS) for 2008-2021, namely the achievement of the MDGs by 2015. It also reflects Mongolia's changing economic, social, and environmental conditions.

Under this UNDAF and taking into account the UN Common Country Programming Principles, the UNCT will work with the GoM, civil society, and other development partners on four strategic priorities:

1. Economic development that is inclusive and equitable contributing towards poverty alleviation;
2. Equitable access to, and utilization of, quality basic social services and sustainable social protection;
3. Improved sustainability of natural resources management and resilience of ecosystems and vulnerable populations to the changing climate; and
4. Strengthened governance for protection of human rights and reduction of disparities.

The CPF is a living document, the contents of which will be adjusted over time taking into consideration the changing circumstances and needs of the country. The CPF provides planning and management tools for implementing food, livestock, and agriculture sector development, and natural resource management in Mongolia.

## II. SITUATION ANALYSIS

### A. THE NATIONAL CONTEXT

Mongolia is one of the most sparsely populated countries in the world; with an average density of 1.75 people per km<sup>2</sup> (2010). With a territory of 1564.9 thousand km<sup>2</sup> the resident population of Mongolia was 2780.8\* thousand by end-2010. Due to continuous rural-urban in-migration, Mongolia now has a mostly urban population (63.3% in 2010) with a national sex ratio of 95 males per 100 females. Administratively, Mongolia is divided into 21 Aimags (provinces), 329 rural Soums (districts) and 1,568 Baghs (rural sub-districts).

Steady economic growth since 2004, drawn from strong mining exports and high mineral prices, has set a favourable stage for poverty reduction in Mongolia. Real GDP expanded at a rate of nearly 9% per annum on average between 2003 and 2010, despite a growth collapse in 2009. In 2010, GDP was MNT 8255.1 billion at current prices: 18% of which contributed by mining and quarrying, 16% by agriculture, 6% by manufacturing, and 8% by wholesale and retail trade. This economic growth has translated into significant reduction in poverty from 61% in 2002 to 35% in 2008<sup>1</sup>. Trade liberalization has contributed to improved availability and stability of food supplies. Supplies of wheat, meat, milk, and vegetables are adequate; reflecting the recovery of the agricultural sector. Average per capita annual consumption of basic foods has been increasing in recent years and meat and dairy products intake is high by regional standards.

However, with regards to **food security and nutrition**, a closer examination of food security at the household level presents a different picture. Given the close relation between poverty and food insecurity, poverty estimates could provide a rough approximation of the magnitude of food insecurity at the household level. If the poverty line is defined as the cost of the basic food and non-food consumption basket, the latest national surveys show that over one-fourth of the population in Ulaanbaatar, one-third of the population in the Aimag centres and almost half the populations in soums are classified as poor. There remains hidden vulnerability and food insecurity of a large number of rural households whose livelihoods depend on cash incomes. Rural food insecurity is most severe during the winter months reflecting insufficient purchasing power as a result of unemployment and underemployment and increased cost of living.

In addition, studies show a high level of micro-nutrient deficiencies persist. The food basket of an average Mongolian is characterised by the dominance of flour and meat products but a negligible amount of vegetables and fruits. This lack of essential vitamins and minerals in diets cause irreversible developmental complications especially for children. Vitamin D deficiency in Mongolian children under-five stands at 41% (MoH, UNICEF, NRC 2004), with a high prevalence in eastern, western, highlands regions and Ulaanbaatar. Ministry of Health data also points out that 20% of children are anaemic and 11.5 % of pregnant women are anaemic. Iron deficiency in children under-five is also very high at 21%.

<sup>1</sup> Urban-rural disparities however do exist: urban poverty stands at 27% (2008) while rural poverty is still high at 47% (2008)

There are many contributing factors specific to Mongolia that exacerbates food insecurity:

- Traditional nomadic pastoralists and herders in rural areas are wholly dependent on their livestock both for food consumption and livelihoods. Extreme weather conditions (to which Mongolia is highly prone), low investment in the health of their livestock or quality of crops, and a lack of livelihoods diversification make them very vulnerable to a decline in livestock numbers – and thereby highly food insecure.
- Marked changes in winter and summer temperatures result in distinct seasonality of food availability and consumption. Spring is traditionally the leanest season of the year, when availability of food decreases and prices of crop and meat products increase. At the same, nutritional/caloric requirements is higher in the cold winters. Modern storage and processing techniques for seasonal foods also heighten food insecurity in the winters.
- The remoteness and low density of typical rural communities adds significantly to the costs of providing basic infrastructure and social services; furthering isolating them. Without access to independent transport and marketing venues, traditional herders are reliant on traders' visits and are often price-takers. Traditional food processing practices (slaughtering of animals, processing and storage of dairy<sup>2</sup> and meat products, low safety standards) do not bring high profits from the sale of their produce.
- Poor diet diversity and feeding practices are also the result of a lack of correct nutritional knowledge and behaviour. Little knowledge exists about the importance of correct food preparation techniques to maintain nutritional value of foods or the importance of a balanced diversified diet. Improper feeding practices are particularly serious for young children and mothers: complementary foods are often introduced too early or too late, and fail to meet children's nutritional needs (e.g. over-diluted soups, infrequent feeding, etc.). Mothers, who experience sequential pregnancies and are breast-feeding almost continuously one child after the next, do not have time to replenish their nutrient stores.

**Agriculture and related activities** contribute to 16% of Mongolian GDP, employs 32% of the labour force and contributes to around 14% of export revenues. However, the contribution to GDP from agriculture has decreased in recent years due to the booming mining industry (See annexe E on Dutch disease/resource curse). Currently, the total area of arable land in the country is estimated at 1,180.8 thousand hectares (2010) of which 290.3 thousand hectares are cultivated, 274.3 thousand hectares are fallow, 186.8 thousand hectares are under rest and 429.4 thousand hectares are abandoned land. Agricultural production focuses on cereals, including wheat, barley, oat, rye, buckwheat as well as oil plants, potatoes and vegetables. With a growing season of only 3 months, high altitudes, extreme fluctuations in temperature, long winters, and low precipitation there are many obstacles that limit the potential for agricultural development.

In the socialist times, significant crop production development campaigns were organised in 1959 and 1976, as a result of which an independent crop production sector was established with a total arable land up to 1.2 million hectares. However during the transition period, large-scale state owned crop production enterprises were dismantled and privatized; resulting in a sharp reduction of crop production. In 2008, the GoM launched the third campaign on "reclaiming of virgin land" to restore crop production, which allowed Mongolia to become self-sufficient in wheat and potatoes, as well as to reach over 60% self-sufficiency in vegetable production. During this campaign 80% of agricultural tractors and 65% of harvesting machinery was renewed and a good foundation for further rehabilitation was established.

Challenges also exist in the areas of post-harvest processes and the manufacture of quality agricultural products. The current food and agricultural production **value-chain in Mongolia** is still weak; resulting in government policies to increase vegetable production, strengthen financial economic capacity, increase productivity and improve quality through implementing advanced technique and technology, and reinforce and sustain achievements.

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<sup>2</sup> At national level, only 10 percent of the milk and meat are processed industrially (2010)

Industrial processing of agricultural products remains low and quality and safety standards are lagging behind required international levels. The capacity of the national food control system and food safety standard enforcement is weak as evidenced by reports of increasing incidence of food-related diseases. Domestic commercial products are considered as having low quality; and the country has difficulties to support the export of products without a certification and quality control system. Much investment is needed in new and reliable systems that address value-addition through all stages of production from raw materials, processing, and distribution. This also involves competitive procurement, storage, processing, packaging, transportation, delivery, and sale to end-users.

The growth of **livestock breeding and related industries** is traditionally considered the main indicator of socio-economic development in Mongolia since it plays a crucial role in the lives and livelihoods of Mongolians. Animals raised commercially in Mongolia include sheep, goats, cattle, horses and camels. They are raised primarily for their meat and milk, although goats and camels are valued for their fibre, which can be used to produce cashmere and wool.

According to livestock census 2010, the number of livestock in the country was 32,729.5 thousand which includes 269.6 thousand camels (0.8%), 1,920.3 thousand horses (5.9%), 2,176.0 thousand cattle (6.7%), 14,480.4 thousand sheep (44.2 %) and 13,883.2 thousand goats (42.4%). Annually, the sector produces in average around 240 thousand tons of meat, 335.0 million litres of milk, 19.1 thousand tons of sheep wool, 4.6 thousand tons of cashmere, 1.2 thousand tons of camel wool, 1.3 thousand tons of horse hair, 9.9 million pieces of hide. In 2010 the livestock sector contributed to 12.5% of export revenue and employed 34.5% of the total labour force (160,265 herder households or 327,100 herders).

There have been dramatic structural changes in livestock sector of Mongolia in the last two decades that have weakened the competitiveness of the sector significantly. During the privatization campaign of the 1990s, state farms, agricultural cooperatives, veterinary offices, and animal breeding services were dismantled and livestock ownership was privatized. Pastoral management strategies, which were operational before its transition to market economy in 1990's completely collapsed and new/appropriate systems for delivering services to the herders, have not been developed yet.

There has been an absence of management and investment into the livestock and rural sector from either the government or herders. There exists no animal database and livestock products procurement systems; neither any social and financial services to the herders and their families. Animal health and breeding systems remain underdeveloped; directly affecting the productivity of the livestock sector. Recently, the number of genuine and cross breed animals have decreased substantially and the utilization of genetic resources has not been carried out efficiently. Incidence of infectious animal diseases have increased; resulting in growing rates of illness for both human and animals. Prevalence of new highly contagious diseases and the recurrence of previously controlled diseases create conditions that limit supply of raw materials and livestock-products to the market. Despite growth in numbers, the sector remains characterized by low productivity mainly due to the lack of a proper and stable management of pastureland, insufficient fodder and water supply. Pastures make up almost 96.3% (115.8 million hectare) of agricultural land; of which about 70% of the total pastures have degraded to some extent.

All these factors have substantially increased risk to herders' households, the quality of Mongolian livestock, and the health of the livestock industry.

**Mongolia's natural resources** are fragile and are stressed by human activity, harsh winter, hot summers, and low rainfall. During the transition from centrally planned to market economy, Mongolia's natural resources have been heavily exploited.

The total area legally assigned as **forest reserves** in Mongolia stands at 18,565.5 thousand hectares. Mongolian forests grow in extreme conditions of continental climate and therefore have low productivity, slow growth, and are very vulnerable to both human and natural factors such as drought, forest fire, pests and diseases, and quickly lose their ecological balance. Top-down enforcement of regulations has been ineffective and requires more ownership and support from communities. Between 1999 and 2010 total forested area of the country decreased by 451.6 thousand hectares (estimated at 3.6% of forest loss).

Various causes were at play: forest fires, pest infestations, and illegal logging activity. For example, while in 1999 around 240 thousand hectares of forest area was damaged by forest fires, it increased to 772.6 thousand hectares by 2010. In addition, forest logging has wiped out an additional 96.9 thousand hectares, while pest infestations have impacted 659 thousand hectares of forest since 1999. It is necessary to intensify re-forestation and increase community participation and expand foreign and domestic sources of financing for tree planting, build dams and reservoirs for rain and snow water collection. It is equally important to address the impact of economic activity on forest areas. For example, measures must be taken to intensify irrigation of pasture and crop lands and upgrade the construction of modern housing in ger districts so that less wood-fire is used, and enforce strict anti-logging legislature. At present, forest restoration and conservation are suffering from a lack of capacity of forest sector personnel and insufficient resources to sustainably invest in conservation practices. These administrative, regulatory, and capacity issues have to be addressed before the pressing issue of the underdevelopment of use of forest resources is worked upon.

**Mongolian wildlife** is also bearing the brunt of difficult and challenging environmental contexts. Changing temperature, reduced precipitation, increased occurrence of forest fires, accelerated desertification, drying up of spring, ponds, streams, and lakes, and frequent drought, dzuds, snow and sand storms have impacted their habitats. At present, most species are undergoing population decrease; while the Saiga antelope and Dhole are already extinct. In addition, extremely rare species of Yakut moose, Siberian musk deer, Central Asian wild boar, European river otter, Asian wild cat, reindeer, Persian gazelle, and Altai snowcock are reported to have decreased in numbers. Previously abundant species of Mongolian marmot and Mongolian gazelle are now threatened with significant population decrease. For instance, there were around 40 million Mongolian gazelle in the 1980s; only 5 million remain at last census. Insufficient enforcement of laws and regulations related to wildlife and the absence of an effective management structure for conservation and proper use of wildlife is of urgent need. In addition, there is a lack of personnel qualified in modern methods and technology of wildlife conservation and rehabilitation and underdevelopment of unified environmental control systems.

**Mongolian fish stock** is also at risk. A major reason for this is illegal hunting for commercial purposes, deterioration of fish habitats due to pollution caused by mining, and negative impacts of human activities. Of 64 species of fish registered in Mongolia, 23% is reported to have come in danger of extinction and 46% is assessed to have inadequate data on habitats and population. Fishery sector also encounters such problems as underdevelopment of legal environment for fish conservation and propagation, outdated survey and monitoring of fish resources and habitats, absence of sustainable management of commercial fish exploitation and exploitation methods, technology and standards. What is urgently needed is proper management measures to establish sustainable population of commercial fish through conservation and propagation ensure ecological balance and protect basins of rivers and lakes.

The common concern that unites all sectors is the adverse impacts of **climate change**. Despite Mongolia having a vast territory with abundant natural resources and a large number of livestock as well as plenty of unused arable land, the country faces significant challenges in agriculture, food and natural resource sectors mostly because of declining soil fertility, inefficient livestock management, and high-impact natural disasters – all related to climate change.

In Mongolia, the growing pressure on agricultural and livestock production immediately affects the environment. Increased numbers of livestock and constant grazing has resulted in a decline of the natural carrying capacity of pastures and of grasslands, especially those around major settlements. Natural factors, such as the harsh and dry climate, light and thin soils, and the short growing season are also contributing factors. Water feeding of bed soil makes up 15-40% of river runoff and this share shrinks as it moves closer to upstream in water catchment areas and increases in water downstream. There has been substantial desertification, loss of plant species, increasingly threatened habitats; harming both flora and fauna.

Despite such free exploitation of natural resources, crop production is still not profitable. Low yields characterise Mongolian agricultural output; mainly due to poor quality of seeds, inadequate investment in machinery and equipment, lack of irrigation, inadequate focus on plant health, and a high level of on-

and off-farm and post-harvest losses. In addition, there are very few credible agricultural institutions that support diversified agricultural produce like potato or vegetables.

As a result, reduced profitability from pastoral livelihoods had driven many to migrate to urban centres. In turn, significant urban environmental degradation has occurred due to irresponsible vested interests, poor coordination among ministries and agencies, inadequate monitoring of natural resource conditions and weak enforcement of environmental regulations.

Adaptation and mitigation to climatic change should therefore be the core underlying context that is mainstreamed into all interventions. Disaster risk management should be considered priority; including the protection of forests and wildlife, fisheries. Desertification and land degradation requires introduction and application of modern crop production technologies including the development of irrigation systems, no-tillage techniques and preservation of water resources. The efforts of the GoM must be supported, to ensure that pasture law should be a decisive instrument to improve pasture management and regulate relations between state, herders and crop producers.

## **B. REVIEW OF NATIONAL PRIORITIES AND POLICIES**

The national priorities for social and economic development, including priorities for food, agriculture and natural resource sectors are set out in many key documents. Chief amongst those are:

- i. The MDG-based Comprehensive National Development Strategy of Mongolia (2008-2021)
- ii. The Action Plan of the Government of Mongolia
- iii. The State Policy on Food and Agriculture (2003)
- iv. The State Policy Toward Herders (2009)
- v. The "Third Campaign for Reclamation" National Program for development of Crop production (2008-2010)
- vi. The National Program for Food Security (2009-2016) and
- vii. The "Mongolian Livestock" National Program (2010-2021) amongst others.

The MDG-based Comprehensive National Development Strategy of Mongolia defines the goals and strategic objectives of food, agriculture, regional and rural development and environmental policies that would be implemented through various targeted activities in two phases (Phase I: 2008-2015 and Phase II: 2016-2021). The overall policy priorities are identified in this document as:

- i. Agriculture and food industry shall be developed into a modern agricultural and industrial complex through raising their capacity to compete at the market, strengthening their ability to meet risks; the basic needs of the population in terms of flour, meat, milk, potato and other vegetables will be met fully by domestic production, and measures will be taken to ensure their sufficient supply, improved quality and health security;
- ii. A regional development policy shall be implemented continuously and the development gap between urban and rural areas will be significantly reduced;
- iii. A policy, which envisages a set of integrated economic, social and ecological measures aimed at protecting the environment, including the measures to protect the atmosphere, land, mineral wealth, water, forests, species of fauna and flora; proper utilization of mineral resources, their rehabilitation; measures on adaptation to climate change, reducing the adverse impacts of desertification and drought; halting the emission of hazardous chemicals and radioactive waste; and improving waste management shall be implemented.

MoIA and MoNEGD are currently developing draft policy proposals that set strategic direction in the food, agriculture and natural resource sectors for 2012-2016. Pending approval, these proposals suggest the continuation of existing policies, and also set measures to improve the overall legal environment by, for example, formulating laws on livestock development and pasture management, ensuring food secu-

ity, and guaranteeing social protection of rural population. They will also create favourable conditions to increase market access and enhance the value-chain agricultural products, improving natural resources management, and ensure environmental protection.

The main strategic policy document for the development of livestock sector in forthcoming years is the “*Mongolian Livestock*” National program which will be implemented in 2 phases from 2010 to 2021. With a financial target of allocating no less than 3% of annual state budget, this program seeks to develop a livestock sector that is economically viable, competitive in a market economy, and adaptable to impacts of climate change. The intention is to ensure a safe and healthy supply of food to the population, to deliver quality raw materials to processing industries, and to increase export revenues. In this context, the following priority areas have been outlined:

- i. Drawing special attention from the State to the livestock sector as the main traditional economic activity of the country, to assist in the formulation of a favourable legal, economic and institutional environment for sustainable development, and to develop a good governance in the livestock sector;
- ii. Improving animal breeding services based on social need/demand, increasing the productivity and production of high quality, bio-clean livestock products and raw materials and increasing market competitiveness;
- iii. Raising the veterinary service standard to international levels and protecting public health through securing Mongolian livestock health;
- iv. Developing livestock production that is adaptable to climatic, environmental, and ecological changes with strengthened risk management capacity; and
- v. Developing targeted markets for livestock and livestock products; establishing proper processing and marketing structures and accelerate economic turnover through an incentive system.

Strategic objectives for crop production are defined in the development policy for agriculture and food industry set in the MDG-based Comprehensive National Development Strategy which states that (a) crop-farming production shall be increased by improving land use, developing irrigated cultivation and introducing biotechnology, and (b) advanced technology aimed at protecting soil from erosion, preserving its fertility, reducing the moisture loss shall be introduced in crop-farming in the first phase while volume of crop yield will increase during second phase. The government has also decided to continue “Third Reclamation Campaign” of crop development by setting tasks to maintain achievements in the sector by supporting crop production in the Eastern and Western regions and developing programs on increasing vegetable and fruit production that were incorporated into revised National Program for Food Security.

The main strategy document for food and agricultural sector is outlined in the National Program for Food Security (2009-2016) which was formulated by the Government of Mongolia with FAO’s assistance. The Program shall be implemented in two phases: 2009-2012 and 2013-2016. The overall goal of the program is to ensure sustainable supply of nutritious, secure and accessible food, which enables improved health and high labour productivity of the population, involving participation of the citizens, government, public and private sectors. The Program is to be implemented through Four Priority Pillars:

- i. Create enhanced enabling legal, economic, infrastructure and organizational environment for ensuring adequate, safe and nutritious food supply,
- ii. Stable supply for the population with safe, nutritious, secure and accessible foods and increase the proportion of the industrially processed food in overall consumption;
- iii. Improve monitoring and information network to ensure hygiene and safety of food products and drinking waters;
- iv. Improve safe and nutritious quality of food, supporting adequate, healthy diets through food safety and nutrition education, thereby reducing food-borne illness and nutrition deficiency and preventing from risk factors of non-communicable chronic diseases.

To address facing challenges deteriorating environmental situation, the Government of Mongolia has enacted a series of environmental laws, expanded its system of nature reserves, and started to invest in energy-efficient technologies and pollution abatement schemes. In addition, the Government of Mongo-

lia is trying to mainstream environmental concerns into development, and is working with international organizations and civil society to promote environmental awareness.

In addition, the Millennium Development Goals-based Comprehensive National Development Strategy of Mongolia aims to create conditions for sustainable use and protection of forest reserves, reforestation and maintenance of ecological balance. It puts forward objectives to explore forest reserves by using satellite data and remote sensing, determine the sprawl, structure, and composition of forests, develop forest mapping, implement sustainable forest management programmes, undertake measures to make climate milder, restock woodlands and create green zones in Gobi and steppe regions to facilitate fight against desertification, soil erosion, and sand movement and strengthen forest protection through introduction of modern management methods and create a liability system to ensure proper use and protection of forests by allowing local residents and communities to own up to 20% of forests on a contractual basis.

The Concept of the National Security of Mongolia, states in its provisions to take measures aimed at study, conservation, proper use, rehabilitation of natural resources such as forest, wildlife and vegetation, based on scientific grounds, increase forest reserves by 2% through banning export of natural vegetation or accompanying resources of forest and logging of forest for main utilization purpose, support the adoption of wood-replacing technologies, settle issue of fuel wood as a whole through production increase, and pursue policies to increase import of timber and timber products, participation of civil society organizations, private sector and local residents in reforestation activities.

In 1998, the Government of Mongolia approved a National Program on Forestry, for the first time, with the purpose to address the need to strengthen forest conservation and is at present in the process of implementing the program after amendment that reflects current need and the state of forest loss. The objective of the program is to increase effectiveness of forest conservation measures against negative impacts of human activities, forest fires, insects and diseases, produce seeds of trees and bushes, improve nursery of seedlings and saplings, restock forested areas with sources of rivers, logged areas or areas affected with forest fire, insects or diseases at the instance, implement step-by-step measures to establish protection zones, forest belts or green protection in the steppe and Gobi regions as well as to upgrade structural and management organization of the forest and timber sector, introduce scientific and technological advances in the forest sector, expand international cooperation, and strengthen technical and functional capacity of personnel.

The Millennium Development Goals-based Comprehensive National Development Strategy of Mongolia states to contain depletion of animal and plant life, and create conditions for their natural recreation and sustainable use and foresees to revise procedures related to ensuring sustainability and natural growth of populations of rare and extremely rare species, lay legal and economic grounds for their protection, explore ways of creating reliable biological resources by using biotechnological achievements to perform assisted reproduction, and create and protect gene pools of rare and extremely rare species as well as to secure support from international organizations, donor countries and individuals for efficient implementation of long and short-term projects designed to establish and protect reserves and habitat of wildlife, and increase domestic and foreign funding sources.

A number of national programs on wildlife conservation and reproduction have been implemented. The National Programme for the Protection of Red Deer approved by the Great Ikh Khural, National Programs on Protection of Wild Sheep and Snow Leopard, Program on Restoration of Reindeer Husbandry and Improvement of Level of Life of Reindeer People, and National Program on Protection of Rare and Extremely Rare Species approved by the Government are being implemented, however the effectiveness of these programs is hindered by the lack of funding, advanced technique and technology and educated personnel. From the implementation practice of such strategies and programs, it becomes necessary to carry out a detailed scientific survey on current number of wildlife extinct, at risk of extinction, and becoming rare species, their conservation and absence of conservation and take appropriate measures to protect and restore them at both species and ecosystem level.

The Government of Mongolia also approved the National Program on Conservation and Propagation of Commercial Fish Species. The objective of the program is to protect commercial fish reserves and improve structure and management of fishery. The following priorities have been identified in fishery:

- i. Improve legal environment for growing commercial fish species;
- ii. Organize regular survey and monitoring of resources and habitats of commercial fish species;
- iii. Set standard of body size dimensions and fishing nets for each species of commercial fish.

### **C. NATIONAL MILLENIUM DEVELOPMENT GOALS (MDGs) and the UNDAF**

The MDGs are strongly embedded at the policy level, adopted by the Parliament as development benchmarks in 2005 and then as the framework for the MDG-Based Comprehensive National Development Strategy (NDS) for 2008-2021. Mongolia is unique in that there is a MDG-9 to emphasize democratic governance and human rights as necessary conditions for the achievement of all the MDGs.

The 3rd national MDG progress report of 2009 indicated that 6 out of 9 MDGs are likely to be achieved by 2015. It was reported that three MDGs lagging behind: poverty reduction, gender equality and environment. In particular, the nutrition target for the MDG-1 (Target 1c: to halve, between 1990 and 2015, the proportion of people who suffer from hunger) is off-track, and the Government has prioritized it for concentrated efforts to accelerate the progress to achieve its target by 2015. All three areas have relevance to the issues dealt with FAO's CPF.

**Poverty Reduction** The national MDG target is to reduce the poverty level to 18.0 percent and poverty gap to 6.0 percent by 2015. As indicated in the 2010 Household Socio-Economic Survey, 39.2 percent of the total population lives in poverty, which is an increase of 0.5 points from 2009 and by 4.0 points from 2008.

The following measures have been implemented to reduce poverty within the scope of legal reforms:

- i. "The Package Law on Social Welfare" and "The Mongolian Law on Employment Promotion" has been drafted and submitted to the State Great Khural. The amended draft of the "The Mongolian Law on Employment Promotion" includes issues, such as optimization of employment promotion activities coverage, creation of additional social services for targeted groups and establishing a comprehensive registration and information system for labour market.
- ii. Draft of The Mongolian Law on Social Welfare covers cross-sectoral issues, such as initiating a new kind of benefit for poor households in order to improve targeting towards poor and vulnerable groups of population, generating jobs for members of households which entitled for the aforementioned benefit, providing food, health and education benefits to poor families and others.

Sectors contribution to the economic growth is vary, especially role of the sectors in poverty reducing efforts are poorly defined, and policies and actions to address poverty reduction are not coordinated and regulated sufficiently. Therefore, an inter-sectoral mechanism to assess the impact of sector's growth to the poverty reduction and to regulate sectoral policies and actions is important.

**Gender** Although women are active in most areas of Mongolia's economy and society, gender inequalities persist in access to economic opportunities and political decision-making. On average, women earn less than men, stemming mainly from vertical and horizontal segregation. In 2008, Mongolia had a major setback in women's representation in the Parliament as the number of female Members of Parliament dropped to the record lowest of 3.9% versus the MDG-3 target of 30% by 2015. Barriers to women's political participation include high campaign costs, gender-stereotyping, hostile political environment and media. Although, there is a lack of information on rural gender issues, the national statistics describes high unemployment rate of women compared to men. For example, 52.6% of the registered unemployed in the country are women. This index reaches 53.6-55.1% in rural areas while it is 49.4% in Ulaanbaatar. Secondly, the percentage of female-headed households and single women with children

aged below 16 is increasing in rural areas. In 2010, these two indices were registered in rural areas as 68.5% and 63.6%, respectively, while the percentage of women is 51.4% in the total population of the country<sup>3</sup>.

**Environment and Sustainable Development** Mongolia is affected by serious problems of land, water and ecosystem degradation, desertification and biodiversity loss. The country is prone to natural disasters including dzud (harsh winter disaster), forest fires, floods and earthquakes. Climate change is contributing to higher frequency of disasters while response mechanisms are still insufficient. Mongolia's per capita emission is above the global average, due mainly to inefficient energy use, large amounts of livestock and use of raw coal for heating. Only 45% of the population has access to safe water and 28% to adequate sanitation. Implementation of norms and standards, and compliance with the law at national and local levels are weak pointing to inadequate environmental governance. The growing mining sector poses new challenges to Mongolia's environment including pasture degradation, water and soil pollution and wildlife habitat destruction.

## **D. GOVERNANCE SYSTEMS AND RELEVANT NATIONAL STAKEHOLDERS**

There are several ministries and agencies involved in agriculture and rural development and natural resources management. The Mongolian focal point for FAO is the MIA that coordinates the key line ministries on FAO-related matters, jointly with the FAO Representative Office in Mongolia.

In the preparation of CPF Mongolia the first consultative workshop was held on October 27, 2011 in Ulaanbaatar. The participants representing food, agriculture, light industry and nature and environmental sectors and government organizations, research institutes, NGOs/CSOs and private sector attended the workshop.

The situation analysis of the national food, agriculture, forestry, fishery and natural resources sectors and priority areas of CPF for Mongolia was presented during the workshop. Based on the discussion and comments by the participants 1st draft of CPF was reviewed and the re-drafted for the second Consultative workshop.

The second Consultative workshop was organized on January 12, 2012 and delegates of diplomatic organizations, international donor organizations, government organizations including key ministries, NGOs/CSOs, research institutes attended the Workshop.

During the workshop the second version of CPF was introduced and discussed intensively. The final version of CPF has been formulated taking into consideration the comments and suggestions from relevant stakeholders.

The **Ministry of Industry and Agriculture (MoIA)** is the central government body responsible for "enabling a pleasant environment for food, agriculture, trade and service, and sustainable development, as well as supporting rural and regional development to enable economic growth." The MoIA is in charge of implementation of the National Food Security Program (2009) that identifies four main pillars, 13 objectives and 77 plans of action. The MIA is also responsible for development of forestry and fishery subsectors and proper use of forest and fish resources as well as for issue of commercial fishing permission license.

The key departments involved in implementation of the above objectives are: i) Strategy Planning and policy department; ii) Livestock Husbandry Policy Implementation and Coordination Department; iii) Crop Production Policy Implementation and Coordination Department; and iv) Food Production, Trade and Service policy implementation and coordination department. The MIA has also several external structural units such as Veterinary and Animal Breeding Department; Small and Medium sized Enterprises (SME) Department; National Agricultural Extension Centre (NAEC); Crop Production Supporting Fund; SME Supporting Fund; and Bureau for Pasture Land Use of the Migration.

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<sup>3</sup> Mongolian National Statistical Office: Statistical Yearbook – 2010, Ulaanbaatar, 2011. Sections 3 and 4

The **Ministry of Nature, Environment and Green Development (MoNEGD)** is responsible for facilitating improvement and enforcement of laws and legislations to secure conservation, proper use, and restoration and balance-keeping of biodiversity such as forest, wildlife and fish. Forestry Agency subordinated to the MNEGD, engages in enforcement of laws and regulations on forestry and implementation of the government policies on conservation, proper use and restoration of forest resources. The MNEGD pursues a policy to restrict commercial and home-consumption fishing to certain extent.

The MoIA and MoNEGD closely cooperate with the **National Emergency Management Agency, (NEMA)** due to the high dependency of the food, agriculture and environmental sectors on natural and climatic factors. The NEMA is responsible for implementation of the state policy on disaster protection, the state reserves and inter-sectoral coordination, in the field of disaster management. NEMA's core responsibilities are: i) Develop the legal environment for disaster protection; ii) Develop an integrated planning and policy system; iii) Create an integrated information system including a disaster information database; iv) Introduce advances of science and technology to disaster management; and v) Rationalize state and local reserves (quantity, location) and develop warehouse economy. The NEMA's local agencies are responsible for all prevention, rescue and recovery operations including natural disasters.

The vision of the **Ministry of Health of Mongolia (MoH)** is to strive to ensure the availability, accessibility, affordability and equity of quality health care services for all Mongolians, specifically the health issues of vulnerable groups (particularly the poor). The ultimate goal of the MOH is to prevent the population from illness through promoting healthy, secure and nutritious feeding.

The **Ministry of Social Welfare and Labour (MoSWL)** handles affairs related to social services, protection, insurance, relief and rehabilitation including support for disadvantaged groups of people such as the disabled and elderly.

The **State Specialized Inspection Agency (SSIA)** has a Mission to support sustainable social development through creating safe and healthy living environment within the territory of Mongolia, and ensuring rights of people to live and work in safe and healthy environment and to consume good quality goods and services, and building favourable conditions for business entities. The SSIA office is responsible for providing management of the SSIA with policy advice to coordinate its duties to the relevant minister of the government and to make right decisions, to support SSIA with organizational, information and communication, financial and economic aspects. The office consists of Policy and regulations, Planning, Monitoring and evaluation, Information and Financial departments. Within the SSIA system, there are 1733 inspectors on 34 different clusters that work on inspecting implementation of more than 140 laws, 3600 standards, norms, rules and procedures, and resolutions of the parliament and the government of Mongolia to be confirmed by the public.

### III. FAO'S COMPARATIVE ADVANTAGES AND PRIORITY AREAS

The most relevant basic attributes and strength of an organization are those that are intrinsic and unique to it and define its basic organizational characteristics. There are several basic attributes which are intrinsic and in combination unique to FAO thus giving it comparative advantage in the areas of its work:

- i. FAO is the United Nations specialized agency in food and agriculture, with a comprehensive mandate from its member countries to work globally on all aspects of food and agriculture (including fisheries, forestry and natural resources' management), food security and nutrition across the humanitarian development continuum;
- ii. FAO has intergovernmental status and neutrality and the authority to provide a neutral platform where nations can call on each other for dialogue and knowledge exchange;
- iii. FAO has the authority to request any Member Nation to submit information relating to the purpose of the Organization;
- iv. FAO has a regular budget derived from assessed contributions that provides a minimum guaranteed amount of resources that can be committed for medium-term programmed priority activities agreed upon by member countries in the governing bodies, complemented by significant

- voluntary contributions, increasingly mobilized in support of FAO's Organizational Results to leverage FAO's knowledge and enhance outreach;
- v. FAO has staff with a broad range of expertise across its areas of mandate – albeit thinly spread - working in an interdisciplinary fashion; and
  - vi. FAO's country level presence in Mongolia is supported by regional and global multi-disciplinary teams of experts, to respond to demands articulated by the country.

Taking into consideration the evolving development environment and a clear characterization of FAO's basic organizational attributes, a new set of Core Functions have been derived that provide the Organization a unique status, making it well placed to play a distinctive role in key areas. These are the Core Functions "that no other organization can adequately provide" and therefore warrant FAO's position to act in the field.

They correspond to the areas of FAO's work identified by the IEE which would need to be reinvented "if FAO were to disappear tomorrow." In addition, there are also areas for which FAO may not be the only player, but is expected to play a lead role. In such cases, FAO needs to work with partners and should intensify its efforts to develop and operationalize strategic partnerships. An assessment of the basic attributes identified above led to the following Core Functions:

- i. Facilitate and support countries in the development and implementation of international agreements, codes of conduct, technical standards and other international instruments through global governance mechanisms and policy dialogue;
- ii. Advice and support countries in their active and informed participation in the development of those global and regional international instruments and on developing the policies and institutional capacities necessary for their implementation at national and regional level;
- iii. Assemble, analyse, monitor and improve access to data and information, in areas related to FAO's mandate, including global and regional trends and perspectives and associated responses by governments and other stakeholders (e.g. policies, legislation and actions);
- iv. Facilitate, promote and support better governance and policy dialogue for development of effectiveness at global, regional and country levels;
- v. Advice and support capacity development at country and regional level to prepare, implement, monitor and evaluate evidence-based policies, investments and programmes;
- vi. Facilitate partnerships for food and nutrition security, agriculture and rural development between governments, development partners, civil society and the private sector;
- vii. Advocate and communicate at national, regional and global levels in areas of FAO's mandate.

Importantly these Core Functions are consistent with the IEE's vision: "the objective of the Organization is to ensure that within the areas of its mandate, countries at all levels of development, particularly the poorest, have access to knowledge, public goods and services they need". This stated objective requires FAO to be a global policy setter, facilitator, partner and coordinator, as well as "doer".

To reinforce its comparative advantage FAO will be guided in Mongolia by the vision of the Regional Priority Framework which is "a food-secure Asia and the Pacific region" and its mission "to help member countries halve the number of undernourished people in the region by 2015 by raising agricultural productivity and alleviating poverty while protecting the region's natural resources base".

In order to fulfill the Regional Framework's vision and mission, FAO's strategic objectives have been translated into the following five Regional Strategic Priority Areas:

- i. Strengthening food and nutritional security
- ii. Fostering agricultural production and rural development
- iii. Enhancing equitable, productive and sustainable natural resource management and utilization
- iv. Improving capacity to respond to food and agricultural threats and emergencies
- v. Coping with the impact of climate change on agriculture and food and nutritional security.

Within the above regional priorities, the Regional Office for Asia and the Pacific (RAP) will contribute to Organizational Results and Strategic Objectives articulated in the FAO Strategic Framework, following the results-based approach. RAP core functions are:

- i. Providing perspectives, trend monitoring and assessments;
- ii. Capacity development across the individual, organizational and policy level<sup>4</sup> and providing technical support;
- iii. Policy assistance and advice to sub-regions;
- iv. Building partnerships and alliances;
- v. Strengthening information, knowledge and statistics; and
- vi. Developing international instruments. Implementation will be facilitated by RAP's new organizational structure, which involves building multidisciplinary teams around three core areas: (a) agricultural production systems; (b) economic, social and policy assistance; and (c) natural resources and the environment.

Locally, the vision of FAO Mongolia Country Office is "to be a leading, credible and responsive partner in ensuring food and nutrition security of the population". Over the past years, FAO has supported interventions and capacity development activities in the following areas in Mongolia:

- i. Food security and nutrition;
- ii. Agricultural statistics;
- iii. Water management and irrigation;
- iv. Actions against soaring food prices;
- v. Animal health;
- vi. Livestock products processing;
- vii. Natural resources management;
- viii. Conservation of forestry; and
- ix. Food safety

FAO has extensive working experience in Mongolia as the following few examples demonstrates:

Special Program for Food Security (SPFS) (2004-2007) focused on increasing the supply of dairy foods by reducing post-harvest losses and restocking with budget of 1.92 million USD financed by Japan and the TCP on Modernizing and upgrading the national animal breeding program (2007-2010) that introduced a Genetic Improvement Program at national level were among successfully implemented programs in the food and agriculture sectors while Capacity development for forest fire and disaster prevention project (completed in 2003) with budget of 281.0 thousand USD and Emergency measures for control of Siberian caterpillar and other major forest pests in Mongolia project (2005) with budget of 319.9 thousand USD were implemented in environmental sector in the past.

FAO assisted in formulation of National Program for Food Security (2009-2016) and provided a technical assistance for implementing it within the framework of the South-South cooperation. It also rendered the emergency assistances to vulnerable vegetable growers affected by Soaring Food Prices (2009) and herders affected by severe dzud (2010) and outbreak of FMD. Currently, FAO is conducting several projects in improving food security; forest management; capacity development and acting as supervising entity in implementation of integrated livestock based livelihoods support program within the framework of Global Agriculture Food Security Programme (Please refer to the List of past and on-going FAO projects in Mongolia in Annex D).

FAO has extensive experience in capacity development of government institutions, CSOs and farmers which draws from the FAO Framework on CD and differentiates between two types of capacities: technical and functional. FAO draws on the international definition of capacity sees capacity is seen as "the ability of people, organizations and society as a whole to manage their affairs successfully". To this end FAO views Capacity Development (CD) as the "process whereby people, organizations and society as a whole unleash, strengthen, create, adapt and maintain capacity over time".

<sup>4</sup>See FAO's Strategy on Capacity Development (<http://www.fao.org/capacitydevelopment/en/>)

Successful FAO programmes have demonstrated that both types of capacities are crucial for strengthening Member Countries' capacities in the area of agriculture and rural development. Technical capacities refer to capacities in the broad areas of food security, agriculture and rural development necessary for Member Countries to achieve the Millennium Development Goals. Functional capacities refer to those capacities that Member Countries need to uptake and sustain changes in the agriculture and rural development sector. They enable countries to plan, lead, manage and sustain change initiatives to ensure that technical know-how is embodied in local systems and processes in a sustainable way.

FAO has identified four particularly important key areas of functional capacities:

- i. Policy and Normative: capacities to formulate and implement policies and lead policy reform;
- ii. Knowledge: capacities to access, generate, manage and exchange information and knowledge;
- iii. Partnering: capacities to engage in networks, alliances and partnerships;
- iv. Implementation: management capacities to implement and deliver programmes and projects, from planning to monitoring and evaluation.

FAO recognizes that a fundamental condition for a country to reach its development goals lies not only in its ability to address both technical and functional capacities, but also in the levels of capacity that exist across the individual, organizational, and enabling environment dimensions. Capacities developed at the individual dimension lead to changes in skills, behaviours and attitudes among a wide range of actors in the agriculture and rural development sector. Training, knowledge sharing, and networking are ways of strengthening capacities at this dimension. Strengthening capacities at the organizational dimension consists of taking measures to improve the overall functioning and performance of an organization. This dimension has a direct impact on how individuals within the organization develop their competencies and use their capabilities. The enabling environment is the context in which individuals and organizations put their capabilities into action, and where capacity development processes take place. It includes: political commitment and vision; policy, legal and economic frameworks; budget allocations and processes; governance and power structures; incentives and social norms. In striving towards CD in Mongolia, as in other countries FAO will pay attention to the following success factors:

Early stage: identification of CD demands	Formulation and implementation	Finalization and sustainability aspects
<ul style="list-style-type: none"> <li>• Use of frameworks derived from international initiatives (e.g. conventions, treaties)</li> <li>• Early involvement of national actors using participatory approaches</li> <li>• Commitment of national actors to policy implementation and performance improvements</li> <li>• Identification of local/national champions to catalyse change</li> <li>• Undertaking of targeted needs assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Attention to national, regional and sub-regional context</li> <li>• Attention to all three dimensions of capacity</li> <li>• Attention to Technical and Functional capacities</li> <li>• Combination of modalities of intervention</li> <li>• Application of sound training methodologies with appropriate pedagogy</li> <li>• Adoption of medium- to long-term approaches</li> <li>• Creation of networks for knowledge and experience sharing</li> </ul>	<ul style="list-style-type: none"> <li>• Internalization of changes by national actors into their priorities, systems and processes</li> <li>• Ongoing strategic budget allocations</li> <li>• Incremental approaches building on feedback from previous phases</li> <li>• Empowerment of local communities</li> <li>• Monitoring and evaluation of outcomes and impact</li> </ul>

FAO's modalities for Capacity development is through technical assistance on policy advice , development of strategies and technical knowledge and skills transfer through training, coaching, and mentoring including through the farmer field school approach (FFS).

## IV. PROGRAMMING FOR RESULTS

Based on the situation analysis, in line with the UNDAF and the government policies on food, agriculture and natural resources sectors, and taking into consideration the achievements made so far under MDGs and the on-going FAO programme in Mongolia, the CPF has identified the following four priority areas for FAO interventions in the next five years in Mongolia.

**Priority Area 1:** Promotion of sustainable livestock development through improved quality, health, and productivity of livestock and increased pasture, feed, fodder, and water supply

**Priority Area 2:** Introduction of environment-friendly technologies, better irrigation and rotation schemes, and crop diversification strategies to improve crop production

**Priority Area 3:** Promotion of sustainable natural resource management as techniques for adaptation, mitigation, and management for the impacts of climate change

**Priority Area 4:** Development of value chain: improvement of food products, food safety standards, and food marketing

Achievement of the above objectives will involve collaboration and partnerships with Ministries/ Departments/Agencies of GoM mandated with Agriculture, Fisheries, Forestry, Natural Resources Management, and rural development sectors, donors, UN Organizations, private sector and CSOs/NGOs. In addition and in order to achieve more sustainable and impactful results, close alignment with the UNDAF will be ensured including the mainstreaming of the UN Common Country Programming Principles.<sup>5</sup>

CPF interventions will focus on enterprises selected by beneficiaries in line with government priorities and competitiveness (See Annex C) while at the same time accommodating emerging priorities during the implementation period. Capacity building and mainstreaming of gender, population issues, HIV and AIDS, and the environment will be addressed as integral parts of the four selected priority areas. Besides new interventions that will be initiated under these priority areas of focus, there will be action to build on previous and on-going interventions including pest and disease control, improving productivity and income security, strengthening quality assurance and regulation of standards; and stimulating agricultural growth among others.

## PROPOSED INTERVENTIONS

**Priority Area 1:** Promotion of sustainable livestock development through improved quality, health, and productivity of livestock and increased pasture, feed, fodder, and water supply and these issues are considered in 3.5.4 of this document.

Livestock is the main source of food supply for the population and raw materials for processing industry, export revenue, and as such plays an important role for the Mongolian economy. Moreover, livestock is both a renewable resource and the traditional way of living of many Mongolians. Therefore, the sector should be given most priority in the agricultural production of Mongolia and utmost to be done to maintain and enrich this valuable sector in order to preserve traditions while at the same time adopting it to rapidly changing climatic and socio-economic circumstances. This broadly requires that Government agencies introduce public-private partnerships (PPP) that allows public ownership over natural resources while herder households continue to privately own animals.

**Outcome 1.1** Improved technical and managerial capacities of national veterinary and animal breeding institutions to reach international standards

**Output 1.1.1** Technical and managerial capacities of State Owned Enterprises (SOE), Aimag and Soum veterinary and breeding offices and units strengthened

<sup>5</sup>See more information on the UN Common Programming Principles (<http://www.undg.org/index.cfm?P=220>).

**Output 1.1.2** Capacity at Aimag and Soum level veterinary diagnostic laboratories through targeted trainings strengthened.

**Outcome 1.2** Quality of Mongolian livestock is enhanced

**Output 1.2.1** Evidence-based recommendations to the GoM to establish legal and financial frameworks for PPPs in Mongolian livestock rearing provided

**Output 1.2.2** Technical capacity of Gene-pool centre to produce frozen semen and embryos of improved breeds for intensive livestock husbandry in crop production zones and peri-urban areas strengthened

**Outcome 1.3** Enhanced qualities and availability of veterinary services

**Output 1.3.1** Support to introduce advanced technologies and standards for hygiene, sanitation, and disinfection in the livestock industry provided

**Output 1.3.2** Support to introduce advanced technologies for veterinary disinfection service provided (to meet international requirements on residue monitoring and to enhance food safety)

**Output 1.3.3** Support of animal diseases control system in the interface of trans-boundary animal diseases (TAD) provided

**Priority Area 2: Introduction of environment-friendly technologies including, better irrigation and rotation schemes, and crop diversification strategies to improve crop production and productivity and the nutritive value of diets.**

Mongolia is becoming self-sufficient in wheat and potato and has the potential to export such products. On the other hand, the domestic production of vegetables only covers less than two thirds of the total demand. The frequent droughts and the short vegetation period (95-110 days) require the expansion of irrigated fields. Sustainable crop development also requires introducing environmentally friendly modern technology and methods focused on an increase of productivity of the entire crop sector, protection and improvement of soil, diversification of crop with more nutritious, and strengthening the scientific and personnel capacities.

**Outcome 2.1** Improved soil fertility and productivity

**Output 2.1.1** Strengthening the capacity to assess current levels of cropland degradation; with recommendations on the efficient use of forest strips, machinery, and wind breaks to maintain soil fertility

**Output 2.1.2** Recommendations to increase the production and proper usage of organic and other types of fertilizers provided

**Outcome 2.2** Enhanced methods of irrigated crop production

**Output 2.2.1** Assessment conducted and recommendations made; to improve current practices of irrigation technology for crop production in Mongolia

**Output 2.2.2** Support to establish water complex or irrigation schemes in the selected basins of Orkhon, Selenge and Kherlen rivers provided

**Outcome 2.3** Enhanced crop diversification, nutritive value of diets and production

**Output 2.3.1** Evidence-based recommendations to increase number of cereal types cultivated nationally (rye, barley, maize etc.); and guidelines and trainings provided

**Output 2.3.2** Evidence-based recommendations to improve the cultivation and processing of vegetables, fruits, and berries (sea buckthorn) provided

**Output 2.3.3** Evidence-based recommendations to improve the cultivation of industrial plants i.e. sugar beets and oil seeds provided

**Outcome 2.4** Improved agricultural practices and technologies adopted for increased crop production and productivity

**Output 2.4.1** Capacity of Government authorities and farmers at the individual organizational and policy level in crop seed breeding and seed multiplication strategies is strengthened

**Output 2.4.2** Appropriate pilots for mechanization technologies for small scale farmers introduced

**Priority Area 3: Promotion of sustainable natural resource management as techniques for adaptation, mitigation, and management for the impacts of climate change**

Water, land and other natural resources need to be used rationally and their capacity should be met in developing livestock and crop production, supplying of ecologically clean products and safe food from nature. Industrial processing of forest resources such as fruits, berries, mushroom, nuts, medicinal and culinary herbs, and fodder crops is not sufficient and supportive to food security. Scientific basis and information sharing network of natural resource management and capacity building is required for elevating its effectiveness and result-oriented activities. Therefore, the following priority outputs and activities will contribute significantly to the improved participation and responsibility of the state, residents and business entities and other organizations in renovation and capacity development, management and organization of the environmental sector as well as conservation of nature, restriction of desertification and loss of natural resources.

As mentioned earlier, Mongolian pastoral livestock and crop sectors are vulnerable to natural disasters such as drought and dzud. In recent years, such natural disasters have become more frequent, continuous and severe due to the effects of climate change. These two types of disasters are interlinked and bring combined devastating impacts to the entire food, agriculture and natural resource sectors. It requires introducing proper mechanisms and structures for adapting agriculture production to climate change and lessening its impact, mitigate risk and consequences of natural disasters.

Agricultural production in Mongolia is essentially a PPP with livestock and crop assets owned by private producers and pasture and crop land owned by the State. Private owners should have the primary responsibility of ensuring livestock and crop production while the State is responsible for an enabling policy environment, ensuring the sustainability of the natural resource and providing emergency aid in case of emergency condition.

Taking into consideration above mentioned factors, it is obvious that coordinated effort of all stakeholders at national and local levels in establishing unified database and information systems for early warning and emergency preparedness, assessment, response and recovery, improving legal framework and technical facilities of anti-disaster institutions, co-investing in risk management are of great importance in preventing and mitigating natural disasters.

**Outcome 3.1** Enhanced national FNS (Food and Nutrition Security) capacities for Disaster risk reduction (DRR) preparedness and early warning

**Output 3.1.1** Capacity to establish and legal policy and regulatory frameworks for DRR for Food and Nutrition Security is strengthened

**Output 3.1.2** Effective and unified early warning system and database established

**Outcome 3.2** Enhanced participatory natural resource management of forested areas

**Output 3.2.1** Technical capacities of MoNEGD, the Forestry Agency, and the Forest District offices in participatory resource management of forests, fisheries, and wildlife are strengthened

**Output 3.2.2** Capacities of the Forestry Agency built to include wildlife management and protection under it are strengthened

**Output 3.2.3** Capacities of (existing and new) local user groups for forestry, fisheries, and wildlife management strengthened

**Outcome 3.3** Enhanced national capacity to conserve and restore national forests

**Output 3.3.1** Technical and organisational capacity of the Forest Conservation Centre built to conduct forest censuses

**Output 3.3.2** Technical capacity of the Forest Conservation Centre and an information network built to prevent and reduce forest and steppe fires  
**Output 3.3.3** Environmentally-friendly forest pest control techniques to reduce infestations Introduced and used

**Output 3.3.4** Quality and efficiency of forest restoration improved; by upgrading technologies, technical skills, and equipment used in existing forest-tree seed and sapling nurseries

**Outcome 3.4** Enhanced policy environment on the sustainable management of fish resources

**Output 3.4.1** Capacities of Research Institutes to conduct a study to establish the level of national fish stock of all varieties in Mongolia are strengthened

**Output 3.4.2** Evidence-based policy recommendations to MNEGD and MIA on the Inland capture fisheries and aquaculture provided

**Outcome 3.5** Enhanced resilience of the livestock sector to climate change impacts

**Output 3.5.1** Capacity of herders in adaptation to climate change is strengthened

**Output 3.5.2** Support and evidence-based recommendations for advanced methods of fodder production at the local levels provided (through up scaling of FAO-pilot project)

**Output 3.5.3** Support (model fence) and evidence-based recommendations to improving quality of fence and insulated shelters for livestock (sheep and goat) provided

**Output 3.5.4** Pasture and livestock water-points sustainably managed through PPP in inter-Aimag pasture zones

**Priority Area 4: Development of value chain: improvement of food products, food safety standards, and food marketing.**

Since the privatization of the state trade and procurement system and agro-processing factories at the beginning of the transition, the country lost reliable markets' links between primary producers, processors and end consumers that lead to the existing disparities in food consumption of rural and urban populations and decreasing quality of agricultural raw materials and incomes of primary producers as well as insufficient supply of national processors and exporting of unprocessed agricultural products.

It requires introduction and development of the effective market value chain, linking primary producers with end consumers, including agro-processing factories.

As briefly indicated in the situation analysis, much of the food available in Mongolia is either locally produced and transported by the informal sector or imported by small traders. Such food products of uncertain origin enter the market without appropriate quality and hygiene certificates increasing the vulnerability to food and human security. This suggests both the government and private sectors to establish a proper market value chain for food products and to focus on modernizing and expanding food processing and rationalizing the food safety management system. It requires comprehensive action to develop a value chain and improve food quality and safety standards, including support for agro-processing industry and SMEs, facilitating producers' access to markets.

Introduction of HACCP and other standards in food processing and improving safety management and inspection systems will contribute to the food security, prevention from food-borne diseases and improvement of nutrition and public health, increase export of agricultural products.

A majority of agricultural producers are small scale herders and farmers who hardly sustain themselves by their small number of herds and have no any other sources of income than this small stock of animals. They are most vulnerable to natural disasters and comprise a main portion of rural-urban migrants. The strong seasonality and less productivity of livestock and crop subsectors' underemployment of rural labour do not allow rural producers to generate enough income to cope with poverty. Commercial banks and microfinance institutes are much reluctant to lend to agriculture producers, especially to herders, because of insufficient collateral. Therefore, there is a need to introduce financial mechanisms for lending, including micro-financing, leasing equipment, providing insurance and other safety net services as well as extension service that will assist in training and creating non-agricultural jobs in the rural areas.

There is a need to formulate comprehensive food security policy, strategy and corresponding investment plan to support small scale farmers and poor rural households who are dependent on agriculture for their income and most vulnerable to natural disasters. The Government of Mongolia foresees strengthening

of cooperatives as a way for increasing agricultural productivity, employment opportunity and rural poverty reduction and is currently implementing the “Nationwide Cooperative Development Program II” for 2009-2017.

**Outcome 4.1** Enhanced agro-processing and value-addition of agricultural products

**Output 4.1.1** Technical and functional capacity to reduce post-harvest losses provided for agricultural cooperatives is strengthened

**Output 4.1.2** Technical capacities of SME agro processing (milk processing) units, herders and vegetable growers are strengthened

**Outcome 4.2** Enhanced qualities and safety of food products

**Output 4.2.1** Support to building of competitive national Mongolian food brands and products that meet international quality and safety standards provided

**Output 4.2.2** Support to establish regulatory and food safety management framework for the operation of food industry provided

## V. KEY ASSUMPTIONS AND RISKS

The implementation of the CPF and the attainment of its objectives are based on the assumption that:

- There will be continued goodwill and favourable government policies for increased agricultural investment and that agricultural prices encourage increased investment in the sector;
- Peace, stability, and favourable climatic and weather conditions prevail;
- Power generation and distribution is wide and improved;
- Fuel prices and interest rates in the local and international markets remain stable;
- There is commitment from partner institutions including donors, Development Partners, UN Agencies, the central and local government and NGOs to collaborate and fund activities;
- There will be continued and increased donor funding and coordination with gradual shift from emergency to programmatic funding; and
- Effective mobilization of extra budgetary resources by FAO and Government to support implementation of the CPF.

## VI. IMPLEMENTATION ARRANGEMENTS

In line with the international consensus on aid and development effectiveness, the CPF is co-owned by the Government of Mongolia and FAO and the coordination and implementation mechanism is established based on this basic principle.

FAO has a history of partnership with the GoM in its quest to eradicate hunger, malnutrition and poverty through the development of the agriculture sector. FAO has also been an active partner of the GOM in protecting the environment and promoting sustainable development and disaster risk management strategies. Moreover, FAO established an Emergency and Rehabilitation Coordination Unit (ERCU) in Mongolia following the winter snowstorm “dzud” disaster of 2009-2010 that caused a loss of 9.2 million livestock. FAO’s emergency program in Mongolia has been focused on providing immediate assistance to dzud-affected herders by protecting surviving livestock.

FAO’s services, especially in the areas of facilitating capacity development, focused technical cooperation and capacity building, advocacy and knowledge sharing, policy advice, organization of neutral forums and networking, building partnerships including those with the private sector and NGOs, mobilization of external resources etc., have increasingly become important in meeting the challenges of the rapid advancement of globalization and market liberalization. FAO will promote the provisions of these services during the implementation of the CPF.

In order to effectively implement the CPF, a national-level Steering Committee and Technical Committee will be formed. The national CPF Steering Committee, chaired by the State Secretary of MoIA and con-

sisting of representatives from line ministries/departments and CSOs, will be the coordinating body that oversees the effective implementation of the CPF and takes policy decisions. At the working level, the CPF Technical Committee will be established and will be chaired by the Director General of the Strategic Planning Department of the MoIA. It will consist of representatives from various departments in MoIA, MoNEGD, FAO, the representatives of line ministries and other concerned institutions.

The CPF Technical Committee will report to the CPF Steering Committee and will take decisions on the implementation of the CPF within the approved framework and work plan, while matters requiring policy decisions will be referred to and decided by the CPF Steering Committee. A periodic meeting of the CPF Technical Committee will be organized once every six months while an ad hoc meeting might be organized at the request of the Chairperson.

The Technical Committee will prepare the annual progress report of the implementation of the CPF which will be discussed at the annual CPF Implementation Review Workshop prior to its finalization and submission to the CPF Steering Committee for clearance. The CPF Implementation Review Workshop will be organized once every year to review and evaluate the effectiveness of the implementation and make necessary adjustments to the CPF document if required, with the participation of the members of the CPF Technical Committee and the representatives of other concerned ministries and departments. Active participation of CSOs, academic and research institutions, as well as professional associations in the Review Workshop are mostly welcome.

## **VII. MONITORING AND EVALUATION**

Monitoring progress and evaluating results are key management functions in any performance-based management plan. The strength of an M&E system lies in its ability to provide performance information, which is used to manage results and to improve project performance. The users of the M&E systems include project staff, partners, collaborators, clients, end beneficiaries, donors, as well as the government. Therefore, establishing an effective performance measurement system requires developing an understanding and agreement among all stakeholders of the project as to what is to be achieved during the assessment/ evaluation.

As part of the CPF, a monitoring and evaluation framework has been developed in line with the UNDAF, to guide monitoring of implementation. Monitoring will be done through joint reviews during the Annual Work Plan and Budget (AWPB) Retreats and through field visits involving officials from the Government, FAO, development partners and beneficiaries of CPF interventions. Within FAO, an interdisciplinary Country Task Force, comprising officers from Headquarters in Rome, the Regional Office in Bangkok and FAO-Mongolia, will monitor progress of implementation of CPF. In addition, trust fund projects generally include provisions for an independent evaluation by the representatives of the Government, the donors and the Evaluation Service of FAO.

## **VIII. RESOURCE REQUIREMENTS AND MOBILISATION STRATEGY**

FAO will as much as possible adhere to its responsibility to promote action on all aspects of CPF, and in this respect source and allocate resources to facilitate implementation leading to the achievement of the stated objectives and priority actions. However, bearing in mind that there are limitations on resources resulting from effects of the financial crunch on potential donors, alternative sources of funding to complement FAO efforts will be jointly explored by Government and FAO.

The estimated resource requirement for the CPF by priority area is outlined in Annex C.

**IX. Annexes**

**Annex A: CPF Priority Matrix**

Priority Outcomes Areas CPF 2012-2016	Relevance to the Mid-term Government Programs of Mongolia	Relevance to UNDAF 2012-2016	Relevance to National MDG Mongolia	Relevance to FAO's Strategic Objectives (SOs) and to Regional Priorities (RPs)
<p><b>CPF Priority Area 1:</b> Promotion of sustainable livestock development through improved quality, health, and productivity of livestock and increased pasture, feed, fodder, and water supply</p>	<p>Mongolian Livestock National Program aims: to develop livestock sector that is adaptable to climate change and social development and create an environment where the sector is economically viable and competitive in the market economy, to provide a safe and healthy food supply to the population, to deliver quality raw materials to processing industries, and to increase export</p>	<p><b>Priority 1:</b> Sustainable Economic Development And Poverty Alleviation (Economic development is inclusive and equitable contributing towards poverty alleviation)  <b>Outcome 1:</b> Improved livelihood opportunities with a focus on the poor and vulnerable groups</p>	<p>Eradicate poverty and hunger: Halve, between 1990-2015, the proportion of population living in poverty  Halve, between 1990-2015, the proportion of population who suffer from hunger  Reduce poverty to less than 18%</p>	<p>B) Increased sustainable livestock production (SOs)  B) Fostering agricultural production and rural development (RPs)</p>
<p><b>CPF Priority Area 2:</b> Introduction of environment-friendly technologies; better irrigation and rotation schemes, and crop diversification strategies to improve crop production</p>	<p>The MDG-based Comprehensive National Development Strategy states that (a) crop-farming production shall be increased by improving land use, developing irrigated cultivation and introducing biotechnology, and (b) advanced technology aimed at protecting soil from erosion, preserving its fertility, reducing the humidity loss shall be introduced in crop-farming</p>			<p>A) Sustainable intensification of crop production (SOs)  B) Fostering agricultural production and rural development (RPs)</p>

<p><b>CPF Priority Area 3:</b> Promotion of sustainable natural resource management as techniques for adaptation, mitigation, and management for the impacts of climate change</p>	<p>The MDG-based Comprehensive National Development Strategy identifies the following strategies for:</p> <ul style="list-style-type: none"> <li><b>forestry:</b> to create conditions for sustainable use of forest resources, conservation, reforestation and maintenance of ecological balance.</li> <li><b>Wildlife:</b> to contain depletion of animal and plant life, and create conditions for their natural recreation and sustainable use and plans measures to revise procedures related to ensuring sustainability and natural growth of populations of rare and extremely rare species.</li> <li>The GoM approved the National Program on Conservation and Propagation of Commercial Fish Species in 2008. Its objective is conservation of commercial fish reserves and facilitation of their normal growth, to facilitate upgrade in structure and management of fishery to new level, growing of fresh water fish species, and increasing type and quantity of fish</li> <li>This issue is considered by most GoM programs (Mongolian Livestock, Fodder, and Crop III). However, soil protection and improving, pasture and crop irrigation and crop insurance need solutions to decrease the vulnerability to natural disasters, based on PPPs products.</li> </ul>	<p><b>Priority 3:</b> Environment, Climate change, and Disaster risk reduction (Improved sustainability of natural resources management and resilience of ecosystems and vulnerable populations to the changing climate)</p> <p><b>Outcome 7.</b> Increased sector capacity for sustainable resources management with the participation of primary resource users</p> <p><b>Outcome 8.</b> Reduced risks and consequences of natural and man-made disasters at national and community levels</p> <p><b>Outcome 9.</b> Innovative technologies made available for energy efficiency, green growth and the abatement of urban air pollution</p>	<p>MDG 7: Ensure environmental sustainability</p> <p>Integrate and implement the principles of sustainable development into country policies and programs, reduce air pollution in urban areas, especially in Ulaanbaatar</p> <p>Reduce the shrinking process of rivers and streams by protecting and rehabilitating their sources</p> <p>Reduce, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation condition of population</p>	<p>C) Sustainable management and use of fisheries and aquaculture resources (SOs)</p> <p>E) Sustainable management of forests and trees (SOs)</p> <p>F) Sustainable management of land, water and genetic resources and improved responses to global environmental challenges affecting food and agriculture (SOs)</p> <p>C) Enhancing equitable, productive and sustainable natural resource management and utilization (RPs)</p> <p>I) Improved preparedness for, and effective response to, food and agricultural threats and emergencies (SOs)</p> <p>D) Improving capacity to respond to food and agricultural threats and emergencies (RPs) Coping with the impact of climate change on food and agriculture</p>
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## Country Programming Framework (CPF) 2012-2016

<p><b>CPF Priority Area 4:</b> Development of value chain: improvement of food products, food safety standards, and food marketing</p>	<p>The Mongolian Law of Agricultural Stock Exchange to come into force on June 1, 2012, shall establish a value chain marketing mechanism for improving food quality and safety standards and fair prices on agriculture origin food products and raw materials to increase an income source for herders and crop farmers</p> <p>The NFSP considers creating enhanced enabling legal, economic and organizational environment for ensuring food supply, quality and safety and creating enabling economic, financial and business environments to increase foreign and domestic investment.</p>	<p><b>Priority 1:</b> Sustainable Economic Development And Poverty Alleviation (Economic development is inclusive and equitable contributing towards poverty alleviation)</p> <p><b>Outcome 2.</b> Policies and strategies developed for poverty reduction</p>	<p>MDG 8 -Develop global partnership for development</p> <p>Create favourable condition for achieving the MDGs through developing trade and financial system</p> <p>Development of new information communication technologies and building an information Society</p>	<p>D) Improved quality and safety of food at all stages of the food chain (SOs)</p> <p>G) Enabling environment for markets to improve livelihoods and rural development (SOs)</p> <p>H) Improved food security and better nutrition (SOs)</p> <p>A) Strengthening food and nutritional security (RPs)</p> <p>L) Increased and more effective public and private investment in agriculture and rural development (SOs)</p>
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**Annex B: CPF Results Matrix (Part A)**

CPF Priority Area 1: Promotion of sustainable livestock development through improved quality, health, and productivity of livestock and increased pasture, feed, fodder, and water supply				
CPF results	Indicators, baseline & target	Means of verification	Assumptions	
<b>Outcome 1.1</b> Improved technical and managerial capacities of national veterinary and animal breeding institutions to reach international standards	Implementation of international standards in veterinary and breeding service enterprises Baseline: 22% (2009) Target: 50%	VABA annual report, information bulletin, report of veterinary and breeding enterprises	Failure in organization	
<b>Output 1.1.1</b> Support to enhance technical and managerial capacities of State Owned Enterprises (SOE), Aimag and Soum veterinary and breeding offices and units provided	Number of national trainers Baseline: 0 Target: 25 for veterinary services 25 for animal breeding services  Number of trained officials in veterinary and animal breeding Baseline: 0 Target: all staff approx. 670  Percentage of certified veterinary enterprises and nuclei herd farms Baseline: 22% Target: >50%	VABA annual report  VABA annual report  VABA annual report	Financial resources  Financial resources  Lack of financial resources, building, instruments and equipment, infrastructure	
<b>Output 1.1.2</b> Capacity at Aimag and Soum level veterinary diagnostic laboratories built	Number of Soum Veterinary laboratories certified Baseline: 0 Target: 50  Number of Aimag Veterinary laboratories certified Baseline: 18 Target: 22  Percentage of private veterinary enterprises certified Baseline: 22% (2010) Target: not less than 50%	VABA annual report  VABA annual report  VABA annual report	Financial resources  Financial resources  Financial resources	

## Country Programming Framework (CPF) 2012-2016

<p><b>Outcome 1.2</b> Quality of Mongolian livestock is enhanced</p>	<p>Number of quality-certified breeding animals at the nuclei farm Baseline: 12,161 (2011) Target: 20,000</p> <p>Number of purebred and crossbred livestock, '000 Baseline: 1,744,8 (2010) Target: 2,270,0</p>	<p>VABA annual report</p> <p>VABA annual report</p>	<p>Dzud, natural disasters, contagious diseases</p> <p>Dzud, natural disasters, contagious diseases</p>
<p><b>Output 1.2.1</b> Evidence-based recommendations to the GoM to establish legal and financial frameworks for PPPs in Mongolian livestock rearing provided</p>	<p>Regulatory framework for PPP in livestock husbandry Baseline: 0 Target: PPP agreement/Instruction/ recommendation for animal breeding services</p> <p>Number of established PPPs in livestock husbandry Baseline: 0 Target: 48</p> <p>Number of breeding animals sold under signed PPP agreement Baseline: 0 Target: 1,200/year</p>	<p>VABA annual report</p> <p>VABA annual report</p> <p>VABA annual report</p>	<p>Misunderstanding of PPPs</p> <p>Financial resources, instruments and equipment</p> <p>Financial resources, instruments and equipment, infectious diseases</p>
<p><b>Output 1.2.2</b> Support to improve technical capacity of Gene-pool centre to produce frozen semen and embryos of improved breeds for intensive livestock husbandry in crop production zones and peri-urban areas provided</p>	<p>Imported or established frozen semen production workshop Baseline: manual workshop exists Target: Automatic and hygienic workshop established</p> <p>Annual number of produced frozen semen and embryos Baseline: 8,000 dose semen Target: 100,000 dose semen and embryos</p> <p>Number of the trained breeding technologists Baseline: 35 Target: 150</p>	<p>VABA annual report, Livestock gene-pool report</p> <p>VABA annual report, Livestock gene-pool report</p> <p>VABA annual report, Livestock gene-pool report</p>	<p>Financial resources, production space</p> <p>Financial resources</p> <p>n/a</p>

<p><b>Outcome 1.3</b> Enhanced quality and availability of veterinary services</p>	<p>Number of livestock vaccinated, annually, '000 Baseline: 9,245.7 (2010) Target: 10,632.56</p> <p>Number of livestock covered with precaution measures from infectious diseases, annually (duplicated), '000 Baseline: 30,451.7 (2010) Target: 35,000.0</p> <p>Number diagnostic laboratories certified to international standards Baseline: 0 (2010) Target: 2, SCVL for TAD and VRI for brucellosis</p> <p>Number of livestock covered by laboratory diagnosis, annually '000s Baseline: 1,029 (2010) Target: 2,000.0</p>	<p>Mongolian Statistical Yearbook</p> <p>Mongolian Statistical Yearbook</p> <p>VABA annual report</p> <p>Mongolian Statistical Yearbook</p>	<p>Financial resources, instruments and equipment, infrastructure</p> <p>Financial resources, instruments and equipment, infrastructure</p> <p>Financial resources, building, instruments and equipment, infrastructure</p> <p>Financial resources, building, instruments and equipment, infrastructure, and cold storage equipment for private veterinary units</p>
<p><b>Output 1.3.1</b> Support to introduce advanced technologies and standards for hygiene, sanitation, and disinfection in the livestock industry provided</p>	<p>National standards on hygiene, sanitation, and disinfection published Baseline: (300) Target: 20</p> <p>Number of intensive livestock farms that implement national standards Baseline: 19 out of 1,662 Target: 500 out of 2,500</p> <p>Number of certified livestock farms Baseline: 0 Target: 10</p>	<p>Report of National Agency for Standardization and Metrology</p> <p>VABA annual report</p> <p>VABA annual report</p>	<p>Organizational coordination insufficiency</p> <p>Financial resources, poor management</p> <p>Financial resources, poor management</p>

## Country Programming Framework (CPF) 2012-2016

<p><b>Output 1.3.2</b> Support to introduce advanced technologies for veterinary disinfection service provided (to meet international requirements on residue monitoring and to enhance food safety)</p>	<p>Approved National Residue Program and action plan Baseline: 0 Target: 1</p> <p>National GIS map of risk and outbreak areas of livestock diseases (zoonosis and FMD) Baseline: 0 Target: 2</p> <p>National GIS database of risk and outbreak areas of common livestock diseases Baseline: 0 Target: 1</p> <p>Number of veterinary departments access to the GIS database; disaggregated by VABD, Aimag Vet Offices, and Soum VABU Baseline: 0 Target: 22</p> <p>Information network for herders on the risk of disease outbreak in their area. Baseline: 0 Target: 1</p>	<p>Approved programme and plan</p> <p>VABA annual report</p> <p>VABA annual report</p> <p>VABA annual report</p> <p>VABA annual report</p>	<p>Bureaucratic approach of government institutions</p> <p>Insufficiency of relevant information</p> <p>Insufficiency of relevant information</p> <p>Financial resources</p> <p>Financial resources, lack of dissemination tools to/among herders</p>
<p><b>Output 1.3.3</b> Support of animal diseases control system in the interface of trans-boundary animal diseases (TAD) provided</p>	<p>Number of livestock vaccinated, annually, '000 Baseline: 9,245.7 (2010) Target: 10,632.56</p> <p>Number of certified laboratories : (SCVL for reference lab for TAD) Baseline: 0 (2010) Target: 1</p> <p>Number of livestock covered by laboratory diagnosis, annually, '000s Baseline: 1,029 (2010) Target: 2,000.0</p> <p>Percentage of private veterinary enterprises (805 PVEs) equipped with upgraded facilities (portable fence and bath for injection and bathing) and cold storage equipment for vaccines Baseline: 0 Target: 40%</p>	<p>Mongolian Statistical Yearbook, VABA annual report</p> <p>Mongolian Statistical Yearbook, VABA annual report</p> <p>Mongolian Statistical Yearbook, VABA annual report</p> <p>VABA annual report</p>	<p>Quality of vaccines</p> <p>Lack of knowledge and experience</p> <p>Lack of equipment, tools and experience</p> <p>Financial resources and production space</p>

## Country Programming Framework (CPF) 2012-2016

CPF Priority Area 2: Introduction of environment-friendly technologies, better irrigation and rotation schemes, and crop diversification strategies to improve crop production				
CPF results	Indicators, baseline & target	Means of verification	Assumptions	
<p><b>Outcome 2.1</b> Improved soil fertility and productivity</p>	<p>Areas "anti-soil erosion" implemented in cropping, '000 ha Baseline: 98.9 (2011, report of MIA) Target: 240.0</p> <p>Annual production of cereals, potato and vegetables, '000 tons:</p> <p>a) Cereal harvest: Baseline: 448.1 (2011) Target: 566</p> <p>b) Potato harvest: Baseline: 199.2 (2011) Target: 240</p> <p>c) Vegetable harvest: Baseline: 105.2 (2011) Target: 200.0</p>	<p>Mongolian Statistical Yearbook</p>	<p>Nature and climate factors</p>	
<p><b>Output 2.1.1</b> Assessment of current levels of cropland degradation; with recommendations on the efficient use of forest strips, machinery, and wind breaks to maintain soil fertility provided</p>	<p>Percentage of degraded cropland area Baseline: 56% (2010) Target: 45%</p> <p>Number of nursery plantations that grow tree saplings for cropland protection Baseline - 3 Target - 10</p> <p>Area of forest strips planted to protect cropland Baseline-1000 ha Target- 10000 ha</p>	<p>Assessment report MIA annual report MIA annual report MIA annual report</p>	<p>Financial resources Professional practice and skills, natural force major Professional practice and skills, natural force major</p>	

## Country Programming Framework (CPF) 2012-2016

<p><b>Output 2.1.2</b> Recommendations to increase the production and proper usage of organic and other types of fertilizers provided</p>	<p>Annual production of bacterial and organic fertiliser , ton Baseline: 500 Target: 2,000</p> <p>Number of farms produce organic and bacterial fertilisers; or buyer from them, ton Baseline: 1,000 Target: 5,000</p> <p>Yield of potato and vegetable per hectare after application of organic or bacterial fertilisers Baseline: 13.3 ton/ha Target: 15 ton/ha</p>	<p>MIA annual report</p> <p>MIA annual report</p> <p>MIA annual report</p>	<p>Financial resources, technology availability</p> <p>n/a</p> <p>n/a</p>
<p><b>Outcome 2.2</b> Enhanced methods of irrigated crop production</p>	<p>Number of national irrigation schemes: Baseline: 282 Target: 500</p> <p>Total irrigated areas, ha: Baseline: 45,400 Target: 70,000</p> <p>Key crop production by irrigated farms, '000 ton Baseline:</p> <ul style="list-style-type: none"> <li>• Cereals: 19.8 (2011)</li> <li>• Potato: 157.0 (2011)</li> <li>• Vegetables: 106.1 (2011)</li> <li>• Fruit &amp; berry: 0.7 (2010)</li> </ul> <p>Target</p> <ul style="list-style-type: none"> <li>• Cereals: 36.8</li> <li>• Potato: 180.0</li> <li>• Vegetables: 172.5</li> <li>• Fruit &amp; berry: 35.0</li> </ul> <p>Number irrigated crop farms Baseline: 216 Target: 350</p>	<p>MIA annual report</p> <p>MIA annual report</p> <p>MIA annual report</p>	<p>Financial resources</p> <p>Financial resources, technology availability</p> <p>Financial resources, technology availability</p> <p>Financial resources, technology availability</p>

<p><b>Output 2.2.1</b> Assessment conducted and recommendations made: to improve current practices of irrigation technology for crop production in Mongolia</p>	<p>Recommendation on the irrigation schemes in the basins of Orkhon, Selenge and Kherlen rivers (based on preliminarily study on 61,156 hectares)                      Baseline: 0                      Target: 3 (Detailed exploration, study and working project for each area                      Baseline: 27,900 hectare                      Target: 10100 hectares out of 38000 hectares                      Technical documentation and economical rationale on water flow regulation dams in Orkhon, Selenge and Kherlen rivers                      Baseline: 0                      Target: 4                      Areas covered with irrigation schemes in the three river basins:                      Baseline: 27,900 hectares (131)                      Target: 38,000 hectares (190)</p>	<p>MIA annual report                      MIA annual report                      MIA annual report</p>	<p>Financial resources                      Financial resources                      Under capacity of construction companies;                      Financial resources</p>
<p><b>Output 2.2.2</b> Support to establish water complex or irrigation schemes in the selected basins of Orkhon, Selenge and Kherlen rivers provided</p>	<p>Recommendations on upgrading irrigation technology                      Baseline: out dated strategy and guidelines                      Target: updated strategy and guidelines                      irrigated cropping area with water- efficient irrigation facilities:                      Baseline: 30 hectares (2011)                      Target: 300 hectares (drip and underground irrigation)                      Number of trained irrigation specialists and irrigation operators                      Baseline: 6 irrigation engineers,                      0 irrigation workers                      Target: 30 irrigation engineers,                      100 irrigation workers</p>	<p>MIA annual report                      MIA annual report                      MIA annual report</p>	<p>n/a                      Skills of proper use of facilities and spare parts                      Lack of training material basis, trainers</p>
<p><b>Outcome 2.3</b> Enhanced crop diversification and crop production</p>	<p>National strategy/policy paper on diversification of crop rotation                      Baseline: 0                      Target: 1                      Number of new types of vegetables, fruits, fodder and oilseed crops introduced as components of crop rotation                      Baseline: 0                      Target: 3</p>	<p>MIA annual report                      MIA annual report</p>	<p>Lack of practice and experience                      Financial resources, lack of practice and experience of farmers</p>

## Country Programming Framework (CPF) 2012-2016

<p><b>Output 2.3.1</b> Evidence-based recommendations made to relevant institutions to increase number of cereal types cultivated nationally (rye, barley, maize etc.); and guidelines and trainings provided by these institutions to farmers</p>	<p>Annual production of rye, barley and millet, '000 tons Baseline: /2011/  <ul style="list-style-type: none"> <li>• Rye: 0.6</li> <li>• Barley: 4.5</li> <li>• Oats: 4.3</li> <li>• Buckwheat: 0.6</li> <li>• Maize: 0.0</li> </ul>           Target: /2016/  <ul style="list-style-type: none"> <li>• Rye: 2.4</li> <li>• Barley: 18.0</li> <li>• Oats: 17.2</li> <li>• Buckwheat: 3.4</li> <li>• Maize: 5.0</li> </ul>           Number of trained farmers:            Baseline: 0            Target: 60-70%</p>	<p>MIA annual report  Statistical Yearbook</p>	<p>Insufficient machinery and equipment, know-how, financial resources and natural force major</p>
<p><b>Output 2.3.2</b> Evidence-based recommendations to improve the cultivation and processing of vegetables, fruits, and berries (sea buckthorn) provided</p>	<p>Areas under cultivation of fruit and berry plantation, '000: Baseline: 3.9 hectare (data by Association of sea buckthorn producers) Target: 20.0 hectare  Annual harvest of fruit and berry, '000 tons: Baseline: 0.9 Target: 35.0  Number of PPPs established for processing fruits and berries Baseline: 2 Target: 5</p>	<p>Statistical Yearbook, MIA annual report, report of sea buckthorn national program  Statistical Yearbook, MIA annual report, report of sea buckthorn national program  MIA annual report, report of sea buckthorn national program  MI A annual report, <a href="http://www.pmis.gov.mn">http://www.pmis.gov.mn</a>  Statistical Yearbook  MIA annual report  MI A annual report</p>	<p>Financial resources, natural force major  Financial resources, natural force major  n/a</p>
<p><b>Output 2.3.3</b> Evidence-based recommendations to improve the cultivation of industrial plants i.e. sugar beets and oil seeds provided</p>	<p>Annual harvest of sugar beet, and oil seeds '000 tons Baseline: /2011/  <ul style="list-style-type: none"> <li>• Sugar beets: 0.0</li> <li>• Oil seeds: 4.5</li> </ul>           Target: /2016/  <ul style="list-style-type: none"> <li>• Sugar beets: 0.5</li> <li>• Oil seeds: 20.0</li> </ul>           Recommendations to cultivate sugar beets and oil seeds in rotation            Baseline: 0            Target: 2            Number of sugar beet farm            Baseline: 0            Target: 1</p>	<p>MI A annual report, <a href="http://www.pmis.gov.mn">http://www.pmis.gov.mn</a>  Statistical Yearbook  MIA annual report  MI A annual report</p>	<p>Insufficient machinery and equipment, know-how, financial resources and natural force major  Lack of experience  Machinery and equipment insufficiency, no know-how, financial resources and natural force major</p>

## Country Programming Framework (CPF) 2012-2016

<p><b>Outcome 2.4</b> Improved agricultural practices and technologies adopted for increased crop production and productivity</p>	<p>Potato and vegetable farming mechanization level increased Baseline: 20% (2011) Target: 40%</p> <p>Rate of cereal crop producers' seed renewal (new varieties introduced) Baseline: 50% (2011) Target: 60%</p>	<p>MIA annual report</p> <p>MIA annual report</p>	<p>Financial resources</p> <p>Financial resources, natural factors</p>
<p><b>Output 2.4.1</b> Strengthened capacity of Government authorities and farmers at all levels in plant breeding and seed multiplication strategies</p>	<p>Number of cold-tolerant short duration cereal varieties newly tested and introduced Baseline: 1 Target: 5</p> <p>Number of drought- and disease-resistant cereal varieties tested and introduced Baseline : 3 Target: 5</p>	<p>MIA annual report</p> <p>MIA annual report</p>	<p>Laboratory equipment, financial resources</p> <p>Laboratory equipment, financial resources</p>
<p><b>Output 2.4.2</b> Appropriate pilots for mechanization technologies for small scale farmers introduced</p>	<p>Number of farms that introduced winter greenhouses Baseline: 12 Target: 50</p> <p>Secondary level machinery and technique service centers to serve primary potato and vegetable farmers Baseline: 30 Target: 90</p>	<p>MIA annual report</p> <p>MIA annual report</p>	<p>Financial resources, practice and experience of greenhouse farming in the winter</p> <p>Financial resources</p>

## Country Programming Framework (CPF) 2012-2016

### CPF Priority Area 3: Promotion of sustainable natural resource management as techniques for adaptation, mitigation, and management for the impacts of climate change

CPF results	Indicators, baseline & target	Means of verification	Assumptions
<b>Outcome 3.1</b> Enhanced national FNS (Food and Nutrition Security) capacities for DRR preparedness and early warning	Approved National strategy/policy paper Baseline: 0 Target: 1	MIA annual report	Lack of Management
<b>Output 3.1.1</b> Legal policy and regulatory frameworks for DRR for Food and Nutrition Security established	Policy and regulatory framework established Baseline: 0 Target: 1	MIA annual report	Management and administrative bottlenecks in collaboration
<b>Output 3.1.2</b> Effective and unified early warning system and database established	Early warning system and database established Baseline: 0 Target: 1	MIA annual report	Insufficient financial resources Management and administrative bottlenecks in the implementation of new policy
<b>Outcome 3.2</b> Enhanced participatory natural resource management of forested areas	Policy regulation to ensure proper participatory management of natural resources, protection of wildlife, and rational use of forest resources Baseline: Current policy "Regulation on contractual lease of forested areas" addressed only forests Target: Upgraded national regulation to ensure proper participatory management of natural resources, protection of wildlife, and rational use of forest resources National areas registered as under participatory forest management Baseline: 4 million hectares under forest user groups (Annual report of Forestry Agency, 2011) Target: 8 million hectares under forest user groups	Online government regulation database @ <a href="http://www.legalinfo.mn">http://www.legalinfo.mn</a> Annual report of Forestry Agency MNEGD's Bi-annual State of the Environment Report	Insufficient financial resources Management and administrative bottlenecks in the implementation of new policy

## Country Programming Framework (CPF) 2012-2016

<p><b>Output 3.2.1</b> Technical capacities of MNEGD, the Forestry Agency, and the Forest District offices in participatory resource management of forests, fisheries, and wildlife built</p>	<p>Number of staff trained in participatory resource management of forests, fisheries, and wildlife Baseline: 0 of 3,000 total staff (2012) Target: 100 trainers from the staff</p>	<p>Annual report of Forest Authority MNEGD's Bi-annual State of the Environment Report</p>	<p>Insufficient financial resources</p>
<p><b>Output 3.2.2</b> Capacities of the Forestry Agency built to include wildlife management and protection under its remit</p>	<p>Government and parliamentary resolutions and the national law on forestry amended to institutionalise a wildlife body under the remit of the Forest Authority Baseline: Forestry Agency Target: Forest and Wildlife Authority  A comprehensive and enhanced wildlife protection policy drafted by the Forest and Wildlife Authority Baseline: Various, discrete wildlife policies Target: A holistic Wildlife Protection policy</p>	<p>Online government regulation database @ <a href="http://www.legalinfo.mh">http://www.legalinfo.mh</a>  Online government regulation database @ <a href="http://www.legalinfo.mh">http://www.legalinfo.mh</a></p>	<p>Insufficient financial resources  Management and administrative bottlenecks in the implementation of new policy</p>
<p><b>Output 3.2.3</b> Capacities of (existing and new) local user groups for forestry, fisheries, and wildlife management built</p>	<p>Number of (forest, fisheries, and wildlife) user groups Baseline: 630 forest user groups (Annual report of Forestry Agency, 2011) Target: 1,100 holistic (forest, fisheries, wildlife) registered user groups  Number of user groups trained in natural resource management Baseline: 630 forest user groups (Annual report of Forestry Agency, 2011) Target: 1,100 holistic (forest, fisheries, wildlife) registered user groups  Legal agreement between each user group and the Soum administration on the rights and duties of each user group Baseline: Current agreements pertain only to forest management Target: Agreements will outline duties and responsibilities towards forests, fisheries, and wildlife</p>	<p>Annual report of Forestry Agency MNEGD's Bi-annual State of the Environment Report  Annual report of Forestry Agency MNEGD's Bi-annual State of the Environment Report  Manual of forest workers, published by the Forestry Agency</p>	<p>Insufficient financial resources  Management and administrative bottlenecks in the implementation of projects</p>
<p><b>Outcome 3.3</b> Enhanced national capacity to conserve and restore national forests</p>	<p>Increase in forest area as document under the forest census Baseline: 4 million hectares (Annual report of Forestry Agency, 2011) Target: 8 million hectares</p>	<p>Annual report of Forestry Agency MNEGD's Bi-annual State of the Environment Report</p>	<p>Insufficient financial resources, manpower, and technical equipment</p>

## Country Programming Framework (CPF) 2012-2016

<p><b>Output 3.3.1</b> Technical and organisational capacity of the Forest Conservation Centre built to conduct forest censuses</p>	<p>Number of FCC staff trained to conduct forest census Baseline: 0 of 5 staff (Annual report of Forestry Agency, 2011) Target: 80 staff</p> <p>National forest database is established to record extent of national forest cover, average forest loss, carbon balance Baseline: National Forest Database (2011) Target: National Forest Database 2015 to include average forest loss and carbon balance</p> <p>All officials from Soum to UB level have access to the updated online forest database Baseline: UB and 21 Aimags connected to the online database (Annual report of Forestry Agency, 2011) Target: UB, 21 Aimags, and 330 Soums connected to the online database</p> <p>Number of officials trained in the proper usage of the database Baseline: 10 staff (Annual report of Forestry Agency, 2011) Target: 330 Soum staff</p>	<p>Annual report of Forest Authority</p> <p>MNEGD's Bi-annual State of the Environment Report</p> <p>National Forest Database 2015</p> <p>Online Forest Database @ <a href="http://www.forest.mn">http://www.forest.mn</a></p> <p>Annual report of Forestry Agency</p> <p>MNEGD's Bi-annual State of the Environment Report</p>	<p>Insufficient financial resources, manpower, and technical equipment</p>
<p><b>Output 3.3.2</b> Technical capacity of the Forest Conservation Centre and an information network built to prevent and reduce forest and steppe fires</p>	<p>Online information network amongst Governmental agencies and local residents to reduce the occurrence and spread of forest fires Baseline: UB and 21 Aimags (Annual report of Forestry Agency, 2011) Target: 200 Soums</p> <p>Number of people trained in data collection of forest fires Baseline: 10 of 23 staff (Annual report of Forestry Agency, 2011) Target: 200 staff</p> <p>Forest area impacted by forest fires Baseline: 20, 200 thousand hectares (Annual report of Forestry Agency, 2011) Target: 10,000 hectares</p>	<p>Updated online network attached to National Emergency Management Agency (NEMA) website <a href="http://www.nema.mn">http://www.nema.mn</a> and MoNEGD website <a href="http://www.mne.mn">http://www.mne.mn</a></p> <p>Annual report of Forestry Agency</p> <p>MNEGD's Bi-annual State of the Environment Report</p> <p>Annual report of Forestry Agency</p> <p>MNEGD's Bi-annual State of the Environment Report</p>	<p>Insufficient financial resources</p> <p>Unpredictability of humidity levels</p>

## Country Programming Framework (CPF) 2012-2016

<p><b>Output 3.3.3</b> Environmentally-friendly forest pest control techniques to reduce infestations introduced and used</p>	<p>Percentage reduction in the areas of forest areas infested with diseases and pests          Baseline: 0.5 million hectares(Annual report of Forestry Agency , 2011)          Target: 0.2 million hectares (40% reduction)          Number of chemical pesticides commonly used for forest pest control by the Forestry Agency          Baseline:3 or 4 (Annual report of Forest Authority, 2011)          Target:2 chemical pesticides; only organic pesticides</p>	<p>Annual report of Forestry Agency          MNEGD's Bi-annual State of the Environment Report</p>	<p>Insufficient financial re-sources          Availability and supply of organic pesticides and equipment to apply these pesticides</p>
<p><b>Output 3.3.4</b> Quality and efficiency of forest restoration improved ; by upgrading technologies, technical skills, and equipment used in existing forest-tree seed and sapling nurseries</p>	<p>Number of forest saplings planted a year          Baseline: 20 million saplings per year(Annual report of Forestry Agency , 2011)          Target: 50 million saplings per year          Area of forest forestation          Baseline: 10,000 hectares (Annual report of Forestry Agency , 2011)          Target: 15,000 hectares per year          Survival rate of forestation          Baseline: national average 70%(Annual report of Forestry Agency, 2011)          Target: national average : 80%          Number of established nurseries          Baseline: 160 (Annual report of Forestry Agency , 2011)          Target:200          Area of forest strips and green belts          Baseline: 320 hectares (Annual report of Forestry Agency , 2011)          Target: 500 hectares</p>	<p>Annual report of Forestry Agency          MNEGD's Bi-annual State of the Environment Report          Annual report of Forestry Agency          MNEGD's Bi-annual State of the Environment Report          Annual report of Forestry Agency          MNEGD's Bi-annual State of the Environment Report          Annual report of Forestry Agency          MNEGD's Bi-annual State of the Environment Report          Annual report of Forestry Agency          MNEGD's Bi-annual State of the Environment Report</p>	<p>Insufficient financial resources and technical equipment          Failure to adopt latest techniques in nursery and sapling care suitable to Mongolian conditions          Unstable climatic factors</p>
<p><b>Outcome 3.4</b> Enhanced policy environment on the sustainable management of fish resources</p>	<p>Regulatory framework for the sustainable management of fisheries          Baseline: 0          Target: 1 comprehensive commercial fisheries policy</p>	<p>Online government regulation database @ <a href="http://www.legalinfo.mn">http://www.legalinfo.mn</a></p>	<p>Insufficient financial re-sources</p>

## Country Programming Framework (CPF) 2012-2016

<p><b>Output 3.4.1</b> Capacities of Research Institutes built to conduct a study to establish the level of national fish stock of all varieties in Mongolia</p>	<p>Number of scientists and researchers trained in appropriate survey methods            Baseline: 5 of 5 staff (Water Protection and Water Use Division of the Geo-Ecological Institute 2011)            Target: 20 of 20 staff</p> <p>National lakes that have commercial fish stocks, studied            Baseline: 30 lakes have commercial fish resources in Mongolia, of which 4 have been studied (Annual Report of the Geo-Ecological Institute 2011)            Target: 30 lakes</p> <p>Study on levels national fish stock            Baseline: Annual Report of the Geo-Ecological Institute            Target: Published study</p>	<p>Training report from the Water Protection and Water Use Division of the Geo-Ecological Institute</p> <p>Annual Report of the Geo-Ecological Institute</p> <p>National Study on Commercial Fish Stock in Mongolia</p>	<p>Insufficient financial resources</p>
<p><b>Output 3.4.2</b> Evidence-based policy recommendations to MoNEGD and MoIA on the inland capture fisheries and aquaculture provided</p>	<p>Policy paper on sustainable inland capture fisheries management and aquaculture to the GoM            Baseline: 0            Target: 1</p>	<p>Policy paper on sustainable commercial fisheries management</p>	<p>Insufficient financial resources</p>
<p><b>Outcome 3.5</b> Enhanced resilience of the livestock sector to climate change impacts</p>	<p>Annual survival rate of adult animals            Baseline: 82% (on average of 2008-2011)            Target: &gt;95%</p> <p>Number of domestic thoroughbred livestock            Baseline: 736.4 (2010)            Target: by 15% in total</p>	<p>National Statistical Yearbook, Statistical Committee Information</p> <p>National Statistical Yearbook VABA annual report</p>	<p>Environmental force major (drought, dzud)</p> <p>Environmental force major (drought, dzud)</p>
<p><b>Output 3.5.1</b> Capacity of herders in adaptation to climate change built</p>	<p>Percentage of herder trained            Baseline: 0            Target: 30% out of total 311 000 herders</p> <p>Number of Soum trainers            Baseline: 305            Target: &gt;355 newly trained trainers</p>	<p>MoIA annual report</p>	<p>Management and administrative bottlenecks in the implementation</p>
<p><b>Output 3.5.2</b> Support and evidence-based recommendations for advanced methods of fodder production at the local levels provided (through up scaling of FAO-pilot project)</p>	<p>Hay production            Baseline: 1,137,300.0 ton (2010)            Target: 1,200,000 ton</p> <p>Area of improved, fenced, and registered hay fields, ha            Baseline: 13,700 (2011)            Target: 17,800 including the baseline</p> <p>Area of rested and improved fields, ha            Baseline: 43,500 (2011)            Target: 62,600</p>	<p>MoIA annual report</p>	<p>Insufficient financial resources</p> <p>Management and administrative bottlenecks in cooperation</p>

## Country Programming Framework (CPF) 2012-2016

<p><b>Output 3.5.3</b> Support (model fence) and evidence-based recommendations to improve quality of fence and insulated shelters for livestock (sheep and goat) provided</p>	<p>Design of model winter and spring fences for livestock (sheep and goats)            Baseline: 0 (2011)            Target: 10 (2 for each of 5 natural zones of hangai, steppe, Gobi, alpine, forest-steppe)            Number of pilot model fences build by new design            Baseline: 0 (2011)            Target: 20 fences; 2 types in each zone</p>	<p>MolA annual report</p>	<p>Insufficient financial resources            Management and administrative bottlenecks in cooperation</p>
<p><b>Output 3.5.4</b> Livestock water-points sustainably managed through PPP in inter-Aimag pasture zones</p>	<p>Exploratory study areas to discover water points            Baseline: 272,000 ha            Target: 374,300 ha            Number of water-points identified in otor pasture zones            Baseline: 10 (2008-2011)            Target: 10 newly in western otor regions</p>	<p>MolA annual report</p>	<p>Insufficient financial resources            Management and administrative bottlenecks in cooperation</p>

### CPF Priority Area 4: Development of value chain: improvement of food products, food safety standards, and food marketing

CPF results	Indicators, baseline & target	Means of verification	Assumptions
<p><b>Outcome 4.1</b> Enhanced agro-processing and value-addition of agricultural products</p>	<p>Percentage of agricultural raw materials and products sold through commodity exchange            Baseline: 0 (2011)            Target: &lt;20%</p> <p>Volume of milk and dairy products processed in factories            Baseline: 42.7 mln liters (2011)            Target: 60 mln liters</p>	<p>MolA annual report            National Statistical Yearbook,            MIA annual report</p>	<p>Financial resources            Financial resources</p>
<p><b>Output 4.1.1</b> Support provided and capacity built to reduce post-harvest losses provided for agricultural cooperatives</p>	<p>Number of model cooperatives supported            Baseline: 0 (2011)            Target: 100</p> <p>Number of model agricultural cooperative managers trained            Baseline: 0 (2011)            Target: 329</p>	<p>MolA annual report            MolA annual report</p>	<p>Financial resources            Financial resources</p>

## Country Programming Framework (CPF) 2012-2016

<p><b>Output 4.1.2</b> Support to build capacities of SME agro processing (milk processing) units provided</p>	<p>Number of powdered milk factories with &gt;30 ton/day capacity Baseline: 0 (2011) Target: 2</p> <p>Number of fresh milk cooling centers with 5 ton/day capacity Baseline: 0 (2011) Target: 12</p> <p>Volume of milk supplied by dairy farms and cooperatives per day and number of dairy cows Baseline: 0 (2011) Target: 60 ton milk, 6,000 dairy cows</p>	<p>Mo/A annual report Mo/A annual report Mo/A annual report</p>	<p>Financial resources Financial resources Financial resources, coordination</p>
<p><b>Outcome 4.2</b> Enhanced quality and safety of food products</p>	<p>Number of new Mongolian-branded national food products Baseline: 0 (2011) Target: 100</p> <p>Level of identification of composition and safety of food products Baseline: 40% (2011) Target: 80%</p>	<p>Mo/A annual report Report of National agency for Standardization and Metrology, MIA annual report</p>	<p>Financial resources Financial resources, professional personnel</p>
<p><b>Output 4.2.1</b> Support to building of competitive national Mongolian food brands and products that meet international quality and safety standards provided</p>	<p>Number of food processing industry implemented international food safety management standards Baseline: 2 (2011, Makh Market LLC and MCS Tiger Brewery LLC) Target: 10</p>	<p>Mo/A annual report</p>	<p>Financial resources</p>
<p><b>Output 4.2.2</b> Support to establish regulatory and food safety management framework for the operation of food industry provided</p>	<p>Policy and Strategy on Codex Baseline: no national Codex strategy, poor coordination of national Codex committee Target: national Codex strategy issued, &gt;30 officials trained in Food safety management</p> <p>Number of food reference laboratory that meet international standards Baseline: 0 Target: 1</p>	<p>Mo/A annual report Mo/A annual report</p>	<p>No Financial resources, capacity of national personnel</p>

**Annex C: CPF Results Matrix (Part B)**

CPF results		Indicative Resource Requirements (US\$)			Implementing Partners		Resource Partners
		Estimate of total resources required	Available funding	Resource mobilisation target (gap)	National	International	
CPF Priority Area 1: Promotion of sustainable livestock development through improved quality, health and productivity of livestock and increased pasture, feed, fodder, and water							
<b>Outcome 1.1</b> Improved technical and managerial capacities of national veterinary and animal breeding institutions to reach international standards		US\$ 4.0 mln			MoiA		
<b>Output 1.1.1</b> Support to enhance technical and managerial capacities of State Owned Enterprises (SOE), Aimag and Soum veterinary and breeding offices and units provided		US\$ 1.0 mln			MoiA, VABD		
<b>Output 1.1.2</b> Capacity at Aimag and Soum level veterinary diagnostic laboratories built		US\$ 3.0 mln			MoiA, VABD		
<b>Outcome 1.2</b> Quality of Mongolian livestock is enhanced		US\$ 3.5 mln			MoiA		
<b>Output 1.2.1</b> Evidence-based recommendations to the GoM to establish legal and financial frameworks for PPPs in Mongolian livestock rearing provided		US\$ 1.5 mln			MoiA, VABD		
<b>Output 1.2.2</b> Support to improve technical capacity of Gene-pool centre to produce frozen semen and embryos of improved breeds for intensive livestock husbandry in crop production zones and peri-urban areas provided		US\$ 2.0 mln			MoiA, VABD		
<b>Outcome 1.3</b> Enhanced quality and availability of veterinary services		US\$ 43.0 mln			MoiA		
<b>Output 1.3.1</b> Support to introduce advanced technologies and standards for hygiene, sanitation, and disinfection in the livestock industry provided		US\$ 15.0 mln			MoiA, VABD		
<b>Output 1.3.2</b> Support to introduce advanced technologies for veterinary disinfection service provided (to meet international requirements on residue monitoring and to enhance food safety)		US\$ 15.0 mln			MoiA, VABD		
<b>Output 1.3.3</b> Support of animal diseases control system in the interface of trans-boundary animal diseases (TAD) provided		US\$ 13.0 mln			MoiA, VABD		

## Country Programming Framework (CPF) 2012-2016

### CPF Priority Area 2: Introduction of environment-friendly technologies, better irrigation and rotation schemes, and crop diversification strategies to improve crop production

Outcome 2.1	Improved soil fertility and productivity	US\$ 7.0 mln	MoiA			
Output 2.1.1	Assessment of current levels of cropland degradation; with recommendations on the efficient use of forest strips, machinery, and wind breaks to maintain soil fertility provided	US\$ 4.0 mln	MoiA			
Output 2.1.2	Recommendations to increase the production and proper usage of organic and other types of fertilizers provided	US\$ 3.0 mln	MoiA			
Outcome 2.2	Enhanced methods of irrigated crop production	US\$ 59.0 mln	MoiA			
Output 2.2.1	Assessment conducted and recommendations made; to improve current practices of irrigation technology for crop production in Mongolia	US\$ 1.0 mln	MoiA			
Output 2.2.2	Support to establish water complex or irrigation schemes in the selected basins of Orkhon, Selenge and Kherlen rivers provided	US\$ 58.0 mln (GoM 20 mln, private sector 30 mln, FAO 8 mln)	MoiA			
Outcome 2.3	Enhanced crop diversification and crop production	US\$ 6.0 mln	MoiA			
Output 2.3.1	Evidence-based recommendations to increase number of cereal types cultivated nationally (rye, barley, maize etc.); and guidelines and trainings provided	US\$ 1.0 mln	MoiA			
Output 2.3.2	Evidence-based recommendations to improve the cultivation and processing of vegetables, fruits, and berries (sea buckthorn) provided	US\$ 3.0 mln	MoiA			
Output 2.3.3	Evidence-based recommendations to improve the cultivation of industrial plants i.e. sugar beets and oil seeds provided	US\$ 2.0 mln	MoiA			
Outcome 2.4	Improved agricultural practices and technologies adopted for increased crop production and productivity	US\$ 7.0 mln	MoiA			
Output 2.4.1	Strengthened capacity of Government authorities and farmers at all levels in seed breeding and seed multiplication strategies	US\$ 2.0 mln	MoiA			
Output 2.4.2	Appropriate pilots for mechanization technologies for small scale farmers introduced	US\$ 5.0 mln	MoiA			

## Country Programming Framework (CPF) 2012-2016

CPF Priority Area 3: Promotion of sustainable natural resource management as techniques for adaptation, mitigation, and management for the impacts of climate change						
<b>Outcome 3.1</b> Enhanced national FNS (Food and Nutrition Security) capacities for DRR preparedness and early warning					US\$ 2.0 mln	
<b>Output 3.1.1</b> Legal policy and regulatory frameworks for DRR for Food and Nutrition Security established					US\$ 0.5 mln	
<b>Output 3.1.2</b> Effective and unified early warning system and database established					US\$ 1.5 mln	
<b>Outcome 3.2</b> Enhanced participatory natural resource management of forested areas				MoNEGD, FA	US\$ 4.3 mln	
<b>Output 3.2.1</b> Technical capacities of MoNEGD, the Forestry Agency, and the Forest District offices in participatory resource management of forests, fisheries, and wildlife built				MoNEGD, FA	US\$ 0.7 mln	
<b>Output 3.2.2</b> Capacities of the Forestry Agency built to include wildlife management and protection under its remit				GoM, Parliament, MoNEGD, FA	US\$ 0.8 mln	
<b>Output 3.2.3</b> Capacities of (existing and new) local user groups for forestry, fisheries, and wildlife management built				MoNEGD, FA	US\$ 2.8 mln	
<b>Outcome 3.3</b> Enhanced national capacity to conserve and restore national forests				MoNEGD, FA	US\$ 11.0 mln	
<b>Output 3.3.1</b> Technical and organisational capacity of the Forest Conservation Centre built to conduct forest censuses				MoNEGD, FA	US\$ 2.5 mln	
<b>Output 3.3.2</b> Technical capacity of the Forest Conservation Centre and an information network built to prevent and reduce forest and steppe fires				MoNEGD, FA	US\$ 2.5 mln	
<b>Output 3.3.3</b> Environmentally-friendly forest pest control techniques to reduce infestations Introduced and used				MoNEGD, FA	US\$ 2.5 mln	
<b>Output 3.3.4</b> Quality and efficiency of forest restoration improved ; by upgrading technologies, technical skills, and equipment used in existing forest-tree seed and sapling nurseries				MoNEGD, FA	US\$ 3.5 mln	
<b>Outcome 3.4</b> Enhanced policy environment on the sustainable management of fish resources				MoNEGD	US\$ 1.1 mln	
<b>Output 3.4.1</b> Capacities of Research Institutes built to conduct a study to establish the level of national fish stock of all varieties in Mongolia				MoNEGD, Geo-Ecological Research Institute	US\$ 0.5 mln	

## Country Programming Framework (CPF) 2012-2016

Output 3.4.2 Evidence-based policy recommendations to MNEGD and MoIA on the Inland capture fisheries and aquaculture provided	US\$ 0.6 mln	MoNEGD, MoIA			
Outcome 3.5 Enhanced resilience of the livestock sector to climate change impacts	US\$ 7.5 mln	MoIA			
Output 3.5.1 Capacity of herders in adaptation to climate change built	US\$ 1.0 mln	MoIA			
Output 3.5.2 Support and evidence-based recommendations for advanced methods of fodder production at the local levels provided (through up scaling of FAO-pilot project)	US\$ 2.5 mln	MoIA			
Output 3.5.3 Support (model fence) and evidence-based recommendations to improving quality of fence and insulated shelters for livestock (sheep and goat) provided	US\$ 1.0 mln	MoIA			
Output 3.5.4 Livestock water-points sustainably managed through PPP in inter-Aimag pasture zones	US\$ 3.0 mln	MoIA			
<b>CPF Priority Area 4: Development of value chain: improvement of food products, food safety standards, and food marketing</b>					
Outcome 4.1 Enhanced agro-processing and value-addition of agricultural products	US\$ 64.1 mln	MoIA			
Output 4.1.1 Support provided and capacity built to reduce post-harvest losses provided for agricultural cooperatives	US\$ 4.0 mln	MoIA	US\$ 4.0 mln		
Output 4.1.2 Support to build capacities of SME agro processing (milk processing) units provided	US\$ 60.1 mln	MoIA	US\$ 46.0 mln	US\$ 14.1 mln (GoM)	
Outcome 4.2 Enhanced quality and safety of food products	US\$ 5.5 mln	MoIA			
Output 4.2.1 Support to building of competitive national Mongolian food brands and products that meet international quality and safety standards provided	US\$ 1.0 mln	MoIA			
Output 4.2.2 Support to establish regulatory and food safety management framework for the operation of food industry provided	US\$ 4.5 mln	MoIA	US\$ 0.9 mln	3.6 mln	

## Annex D: List of some past and on-going FAO projects in Mongolia

Agriculture, food and natural resource sectors have implemented various projects and programs with support from foreign donors and international organizations, including FAO, IFAD, Asian Development Bank (ADB), World Bank (WB), UNDP, Japan, EU, Switzerland and others as a grant aid, technical assistance and soft loan in livestock, crop production, food processing and environmental protection areas. It was reported that around 20 projects and programs have been implemented in the food and agriculture sectors totalling to approximately over 72 million of US\$.

Bilateral and multilateral donors as well as international NGOs have been involved in supporting poverty alleviation and introducing innovative methods of resource management, production, finance and marketing suitable to a food, agriculture and forestry sectors, during the transition period. Many of them are becoming well established models in communities and some are becoming institutionalized in the policy framework and institutional programs. They have also played a major role in all phases of emergency management.

<p>The GCP/MON/001/JPN Increasing the supply of dairy products to urban centres in Mongolia by reducing post-harvest losses and restocking USD1.96 million</p>	<ul style="list-style-type: none"> <li>Funded by the governments of Mongolia and Japan, under the Kennedy Round facility, and executed by FAO under its global Special Program for Food Security (SPFS) and implemented during 2005-2007 to rebuild the dairy industry in Mongolia by introducing an innovative, complete cow-to-consumer dairy food-chain system.</li> <li>Within two years, the project was able to reverse the downward trend of fresh milk production and reduce the huge government expenditure on imported milk and dairy products. The long-term impact of the project showed the government and other stakeholders that milk can be produced, collected, processed and marketed to replace imported milk powder to the benefit of thousands of herders and milk producers. It has convinced government to invest heavily in sustainable development of the dairy sector. During the project lifetime, a new National Dairy Program was approved by the Government.</li> <li>Following successful implementation of the project under SPFS, the government requested FAO assistance in formulating a National Program for Food Security (NPFS). In support of this NPFS, the European Union has approved a three-year, \$1.2 million FAO-proposed project on food security that will support vegetable growers and focus on small-scale crop production in order to find innovative solutions to food insecurity and malnutrition problems of vulnerable segment of the population. The Government of P.R. China is providing technical assistance within the South-South Cooperation (SSC) framework to support the implementation of the NPFS. The latest grant of \$12.5 million from the Global Agriculture and Food Security Fund to Mongolia's technical proposal was the result of the government's commitment to the National Program for Food Security.</li> </ul>
<p>TCP/MON/3101 Strengthening Early Warning for Trans-boundary Animal Disease Diagnosis (2006-2009)</p>	<ul style="list-style-type: none"> <li>As a result of this project the National early warning preparedness plans were documented and contingency plan documentation was started.</li> </ul>

## Country Programming Framework (CPF) 2012-2016

TCP/MON/3104 and TCP/MON/3205 Modernizing and Upgrading the National Animal Breeding Program (2008-2010)	<ul style="list-style-type: none"> <li>The project introduced a Genetic Improvement Program at national level and its result played an important role in developing and understanding major principles of a scientific-based breeding program in the country.</li> </ul>
TCP/MON/3105 and TCP/MON/3206 Improved Meat Hygiene and Commercial Meat Processing (2008-2010)	<ul style="list-style-type: none"> <li>in the result of the project the meat training and service centre was established for supporting the safe slaughter, processing and distribution of meat and meat products; and four Soum-level enterprises were established for small-scale animal slaughter and meat processing</li> </ul>
TCP/MON/3202 Input Supply to Vulnerable Populations under the Initiative on Soaring Food Prices (ISFP)	<ul style="list-style-type: none"> <li>The project achieved its overall goal to help farmers faced with high production costs and to maintain their production in 2009. 9 094 beneficiaries in the 11 Aimags and nine Ulaanbaatar districts were provided with certified high-quality improved potato and vegetable seeds.</li> </ul>
TCP/MON/3301 and OSRO/MON/001/AUS; OSRO/MON/002/CHA Emergency assistance to support the livestock-based livelihood system of the most vulnerable Dzud-affected herder families in Mongolia	<p>FAO, together with the Government of Mongolia, implemented a USD 1.38 million emergency and rehabilitation program in support to the most affected herders following the occurrence of the 2009/2010 dzud. Through the implementation of the OSRO/MON/001/AUS and OSRO/MON/002/CHA projects, livestock production capacity, food security and income generation were immediately protected and rehabilitated for the most vulnerable Dzud-affected herder households, in total 2 614 (about 15 684 people), in the selected 22 soums of seven provinces. Moreover, the implementation of such projects included the provision of emergency supply of critical livestock inputs such as complementary feed and veterinary medicines, which allowed the prevention of further livestock deaths. The TCP project was also implemented as part of the Dzud rehabilitation program and encompassed the establishment and maintenance of a functional agriculture cluster providing support to MoIA and other relevant stakeholders in the development of a comprehensive livestock-based livelihood rehabilitation and recovery program. In line with the Government of Mongolia strategic framework to bridge the gap between emergency response and early recovery contributing to the medium-term livestock rehabilitation plan, TCP projects concentrated on the establishment of a pilot herder community based fodder reserve to demonstrate the production of fodder for a complete production cycle from planting to harvesting, construction of an irrigation scheme on 10 HA of land in the most affected Bayangol soum, Ovorkhangai province, supply of agricultural machinery. In addition, Training for Trainers (ToT) programmes for provincial livestock technicians on winter preparedness and a series of out-reach training on fodder reserves schemes were delivered to herders. Such activities were in line with the plans of the Government of Mongolia to start engaging herders in preparing for the harsh winters by setting-up fodder reserves at community level.</p>
GCP/MON/002/NET Capacity building and institutional development for participatory natural resources management and conservation in forest areas of Mongolia (2007-2011)	<ul style="list-style-type: none"> <li>The project has introduced pilot approaches at the grassroots level through establishment of Forest User Groups and Participatory Forest Management integrated into rural development in pilot areas and supported by an enabling regulatory framework and empowered institutions at national, regional and local levels</li> </ul>

<p>TCP/MON/3204 Technical assistance to collect basic agricultural statistics through the population census (2009-2011)</p>	<ul style="list-style-type: none"> <li>The project was implemented at the National Statistics Office (NSO) and FAO assisted NSO in the preparation of the frame for the census of agriculture (CA) and a formulation of a Trust Fund project proposal for the conduct of the CA in 2012 for the first time ever in the country. FAO also encouraged NSO to amend the country's Statistics Law to include the census of agriculture (combining the livestock and agricultural census) as a decennial activity. The law was amended in early December 2011 paving the way for NSO to request budget for the CA 2012.</li> </ul>
<p>GCP/MON/006/EC Enhancing food and nutrition security for vulnerable segments of the population of Mongolia through capacity building in small-scale vegetable production (2010-2013)</p>	<ul style="list-style-type: none"> <li>The project was launched in October 1, 2010 with the financial support from European Commission (EC) and FAO. 1854 households have been selected as direct beneficiary farmers who receive full project support including critical agricultural inputs and capacity building trainings seed support from project. A baseline survey was conducted to identify actual food and nutrition security situation, household income, livelihood situation and the existing capacity to produce potato and vegetables of the beneficiary farmers.</li> </ul>
<p>GCP/MON/004/CPR Technical Assistance under the South-South Cooperation (SSC) with the People's Republic of China in support of the National Programme for Food Security (NPFS) in Mongolia (2010-2013)</p>	<ul style="list-style-type: none"> <li>The China funded, FAO executed, trust fund project aimed at providing SSC expertise from China to support the implementation of NPFS in Mongolia, within the context of the FAO-China SSC Strategic Alliance formed in 2006 and with funds from the General Agreement signed on 24 March 2009 on the Trust Fund between China and FAO. According to the SSC Tripartite Agreement reached among China, Mongolia and FAO, SSC-Mongolia project was implemented from 2010 to 2012 with 6 experts and 13 technicians at 19 SSC hosting units designated by the Government of Mongolia using the main modalities of micro-projects, field demonstrations and in-country trainings conducted in 11 areas of activities: (1) artificial insemination, (2) animal feed production and supply, (3) chicken feed production, (4) greenhouse farming, (5) irrigated agriculture, (6) storage, (7) plant protection, (8) agricultural machinery service, (9) food safety inspection and analysis, (10) commodities exchange and wholesale trade network, (11) extension service. In 2012, the project NTE was extended with zero budget increase till 14 September 2013 with 3 experts and 2 technicians in three areas of activities, namely animal feed production and supply, chicken feed production and greenhouse farming.</li> </ul>

## **Annex E: Dutch Disease: A key underlying issue for agricultural development in Mongolia**

Mongolia is undergoing a significant and rapid transformation, mainly due to the sudden and strong growth spurt in the mining industry. This pattern of development can have serious implications for the agricultural sector and for poverty and hunger reduction.

In the past few years, the mining industry has made an increasing contribution to Mongolian GDP: from 11.7% in 2003 to 22% in 2010. Infrastructure construction, mostly in relation to the mining industry, has also registered strong growth. In the agriculture sector, the main export earner continues to be cashmere retail, although with diminishing importance to overall export revenues.

While Mongolian export earnings, foreign remittances, and capital inflow see an increasing trend, national unemployment rates – both formal and informal – remains at around 9%. In terms of employment potential, both the mining industry and the form of agriculture and livestock herding practiced in Mongolia, are not labour intensive. Unless economic growth occurs in sectors that are labour intensive (especially unskilled labour) it is unlikely that increased national revenues will have a strong impact on equitable poverty reduction.

In addition, the inflow of foreign exchange from sales of mineral resources creates excess demand by private agents for the domestic currency, causing the real exchange rate to appreciate. An appreciation of the real exchange rate makes the country's exports uncompetitive and increases the demand for imports. In other words, the tradable sector (agriculture and manufacturing) suffers, while the non-tradable sector (mainly services and construction) gains. In Mongolia, for example, the manufacturing sector shrank from 7% of GDP in 2003 to 5.4% in 2006 before recovering somewhat to 6.5% in 2010. Financial services increased from a nearly negligible amount in 2001, to 3% in 2003, and then to 4% by 2010. This is termed as the Dutch Disease phenomenon.

The rising exchange rate makes it difficult for potential exporters from the (crop) agriculture and manufacturing sectors to compete with external markets; thus lowering the economic growth rate. If the Mongolian economy remains heavily dependent on copper, gold, and coal exports in the medium-term, it is likely that currency overvaluation will continue. It matters greatly because the growth of the tradable sector, especially agriculture and manufacturing, depends on having competitive exchange rates maintained. It is important to carefully monitor the real exchange rate to prevent the Mongolian currency from becoming overvalued. Experience from other mineral-exporting countries, such as Norway and Timor-Leste, have some useful lessons for Mongolia. A thorough study of the impact of over-dependence on the mining sector; and the attendant adverse impacts on the agriculture sector, food security, and poverty reduction may provide useful insights for policy making.

Without agricultural growth and manufacturing growth, there is little chance of diversifying the Mongolian economy away from its dependence on mineral exports and, more importantly, reducing poverty and hunger. It is clearly important to pursue diversification possibilities in crop agriculture even though the harsh Mongolian climate limits these possibilities. One possibility is to promote peri-urban vegetable gardening, especially in small plots near major cities as an obvious way to increase the earnings of poor households as this kind of activity is likely to be labour intensive and thus have positive impact on poverty. The successful FAO ISFP project in Mongolia could be expanded in this regard.