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Capacity Development in Integrated Livestock-based Livelihoods Support Programme

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## ACRONYMS AND ABBREVIATIONS

ATA	Assistant Technical Advisor
BDS	Business Development Services
CTA	Chief Technical Advisor
DBA	Dairy Breeders Association
DHIP	Dairy Herd Improvement Programme
DoFALI	Department of Food, Agriculture and Light Industry at the aimag level
<i>dzud</i>	Unusual winter conditions with extremely low temperatures and high wind velocity
FAO	Food and Agriculture Organization of United Nations
GAFSP	Global Agriculture and Food Security Programme
GDP	Gross Domestic Product
GMP	Good Manufacturing Practice
GoM	Government of Mongolia
HACCP	Hazard Analysis Critical Control Point
ILBLSP	Integrated Livestock-based Livelihoods Support Programme
LTU	Lead Technical Unit
M&E	Monitoring and Evaluation
MDG	Millennium Development Goal
MIT	Mongolia Institute of Technologies
MoFALI	Ministry of Food, Agriculture and Light Industry
MUSA	Mongolian State University of Agriculture
NGO	Non Governmental Organization
NFSP	National Food Security Programm
NMTPF	National Medium Term Priority Framework
NLP	National Livestock Programme
PAD	Project Appraisal Document
PCU	Provincial Coordination Unit
PDO	Project development objective
PIM	Project Implementation Manual
PIU	Project Implementation Unit
PD	Project Director
PM	Project Manager
PPP	Public-Private Partnership
PSC	Project Steering Committee
PSARTI	Agriculture research and technology institute at Darkhan - a branck of MSUA
RAP	FAO Regional Office for Asia and the Pacific
RIAH	Research Institute for Animal Husbandry
SDC	Swiss Development Cooperation
SE	Supervising Entity
SLP	Sustainable Livelihood Project
TA	Technical Assistance
TCI	FAO Investment Centre
TCP	FAO's Technical Cooperation Programme
TOR	Terms of Reference
UNDAF	United Nations Development Assistance Framework
VABU	Veterinary and Animal Breeding Unit at the soum level

## PROJECT OVERVIEW

*This FAO project document is prepared for the Technical Assistance (TA) component of the Integrated Livestock-based Livelihoods Support Programme (hereinafter referred as ILBLSP or the project). The FAO TA component is placed under the overall ILBLSP investment components, which will be implemented by the Government of Mongolia (GoM) with support from the World Bank. The FAO-TA activities are all integrated into the investment components and the TA activities are designed to help the investment components to achieve the project development objective of the ILBLSP.*

The proposed project, ILBLSP, will be implemented for a period of four years by the Ministry of Agriculture, Food and Light Industry (MoFALI) and five aimag governments of (i) Arkhangai; (ii) Bayankhongor; (iii) Govi-Altai; (iv) Khovsgul; and (v) Zavkhan and the target 15 soum governments. It will be financially supported by the Global Agriculture and Food Security Programme (GAFSP) with a budget of USD 12.5 million, of which USD 11 million will be spent for investment and project management activities under the supervision of the World Bank, while FAO will provide direct TA to the MoFALI, the aimag and soum governments with a budget of USD 1.5 million.

The project development objective (PDO) of the ILBLSP, which is defined as “Impact” for the FAO Project Document, is **to increase rural household incomes and food security in selected Soums through improving productivity, market access and diversification in livestock-based farming systems**. To achieve the PDO, the project will be implemented under the following three components: (i) Linking Farmers to Market; (ii) Improving Livestock Productivity; and (iii) Project Management, Technical Assistance and Donor Coordination. The first two components will be referred as the investment components while the third one is identified as the TA component. While the Bank is responsible for all three components, FAO will be responsible to provide TA to all three components.

The FAO-TA component, for which this Project Document is prepared, does not have a separate PDO. The FAO-TA component will share the Result Framework of the Project Appraisal Document (PAD) prepared for the ILBLSP.

The focus of the FAO-TA component is capacity development of staff of the Government of Mongolia (GoM) and key stakeholders who provide support to project target herders. The specific objective of the FAO-TA component, which is defined as “Outcome” in the FAO Project Document is **strengthened human and organizational capacities to deliver increased and more effective public and private investments**.

In May 2010, the Government approved National Livestock Programme (NLP), with an aim to develop a modern, competitive and sustainable livestock sector. The Government allocates no less than three percent of the national budget to the NLP. Experiences gained in the project will directly be fed into the NLP and scaled up through the programme.

It is anticipated that the FAO project approval procedure would take less time compared to the one of the World Bank. Therefore, the FAO-TA project will also include some start-up activities to fill the time gap before the World Bank project begins operations. This FAO-TA project document and the World Bank PAD were prepared by a joint FAO-World Bank Team. The two documents share the same background information, rationale and project design.

# SECTION 1. BACKGROUND

## 1.1 GENERAL CONTEXT

Mongolia is a vast country with an area of 1 569 000 km<sup>2</sup>. Its territory is larger than the one of France, Germany, Italy and the United Kingdom combined. The population is just over 2.7 million, making Mongolia the third most sparsely populated country in the world. This is especially so for rural Mongolia where the population density is less than one person per km<sup>2</sup>. The country has a continental climate characterised by long and extremely cold winters. Its temperatures ranging from as low as minus 45°C on the steppe in winter to plus 45°C in the Gobi desert in Summer.

Since 1990, the country began simultaneous economic and political transformations, after the collapse of the Soviet Union. The rapid liberalization and privatization of the economy resulted in serious social differentiation and impoverishment. The transformation from collective socialism to the market economy during the decade resulted in the collapse of agriculture and the food industry, causing considerable disruption among both urban and rural livelihoods. Mongolia experienced rural migration into urban centres during the 1990s. As a result, urban poverty and food insecurity also increased. The proportion of people living under the poverty line in 1995 was 36.3%. The poverty figure slightly improved during the last decade with a number of government's agricultural and rural development programmes, but remains above 30%.

Starting in mid-2008, the Mongolian economy was struck by the global economic and financial crisis. This also had serious effects on key mineral exports, as well as all other economic activities including the agriculture and livestock sector. All economic indexes collapsed and its fiscal accounts, the balance of payments, tax revenue and all others suffered, which inevitably undermined the government investment on agriculture. After a negative performance (minus 1.3%) in 2009, the economy has strongly rebounded back and the current estimate suggests that real Gross Domestic Product (GDP) grew by more than 6% in 2010. An estimate shows the GDP growth in 2011 will be more than 15%.

However, the agricultural sector, which accounted for 15% of GDP in 2010 and provides a livelihood for about 40% of its population, is still experiencing double-digit contractions. This is mainly due to the impact from the unusual winter conditions with extremely low temperatures and high wind velocity (locally called *dzud*) in 2010. Over 10 million head of livestock died from a lack of fodder triggered by prolonged drought during the previous summer and the severe weather.

Today, both the economy and the political system are liberalized to a great extent; democracy and a market economy constitute dominant features of the country. However, inequality, poverty and food insecurity persist, especially in rural areas where there are large numbers of households still live close to or below the poverty level.

## 1.2 SECTORAL CONTEXT

### 1.2.1 Rural poverty among livestock herders

Livestock-based agriculture has been a backbone of society and regarded a special sector in the Mongolia economy. The agricultural sector accounts for 15% of 2010 GDP and provides livelihood bases for about 40% of its population, of which more than 85% depend on livestock production. The livestock-based industry earns around 10% of all export income, next to the mining industry. The country with less than 3 million population has more than 43 million livestock. Although 61% of the population live in the capital city or *aimag* (province) centres, in rural areas people earn their livelihood through agriculture, almost entirely nomadic pastoralism.

The transition to the market economy, which led to privatisation of the national herd, was so rapid that considerable disruption was caused to rural livelihoods and created a large number of relatively small-scale and often subsistence herding households. The size of the national herd has been steadily expanding, from 26 million, considered near carrying capacity, in 1996 to 43 million by 2010. After transition, Mongolia experienced deindustrialization and herding families doubled by 1996. Roughly 70% of these families have subsistence herds of less than 100 animals, where poverty is particularly persistent.

### **1.2.2 Vulnerable sector: Imbalance of species composition, overgrazing, and *dzud***

Since transition, loss of alternative State employment and the need for household food (and financial) security resulted in the progressive increase in national herd size. There has been a change of herd structure in favour of cashmere goats, as cashmere is a ‘cash crop’, which has caused imbalance in the livestock species structure with goats now the most numerous species. A huge increase in goats and overall livestock numbers has resulted in intense pressure on grazing lands, which has led to exploitation of traditional winter grazing areas in other seasons. The incessant pressure to increase animal numbers has created serious overgrazing and amplified the boom-bust cycle in livestock numbers.

The sector remains vulnerable to extreme weather conditions. Mongolia experiences winter disasters, called *dzud* in the local language. The winter *dzud* of 1999, 2000 and 2001 reduced the national herd from 34 million by one-third. The *dzud* of 2009 – 2010 is resulted in the death of over 10 million animals at the estimated cost of more than USD 340 million. As a result, of these two *dzuds*, more than 20,000 households lost their livelihoods, increasing poverty levels and rural-urban migration. Apparent climate change, associated with erratic rainfall during the summer season when pasture land regenerates and winter fodder is conserved is increasingly affecting the livestock production.

## **1.3 COUNTRY-LED FOOD SECURITY POLICY AND PLANS**

### **1.3.1 National Livestock Programme (NLP)**

In May 2010, the Government approved National Livestock Programme (NLP), which aims to develop a modern, competitive and sustainable livestock sector. It outlines challenges of livestock sector and vision, and proposes a set of actions with an aim *to develop a 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 material to processing industries, and to increase export.*

The Government allocates no less than three percent of the national budget to the NLP. The following priority areas were identified for the NLP:

- (i) the formulation of a favorable legal, economic and institutional environment for sustainable development and good governance;
- (ii) improving animal breeding services and increasing the productivity and production of competitive, high quality, bio-clean products and raw materials;
- (iii) raising the veterinary service standard to international levels and protecting public health;
- (iv) developing livestock production that is adaptable to climatic, environmental, and ecological changes with strengthened risk management capacity; and
- (v) developing targeted markets, establishing processing and marketing structures and accelerate economic turnover through an incentive system.

### **1.3.2 National Food Security Programme (NFSP)**

The NFSP (2009 – 2016), equivalent of a country investment plan for food security and agriculture, aims *to provide the entire nation with secure supplies of accessible nutritious and safe food to enable healthy livelihoods and high labour productivity founded on the participation of the people, government, the public and private sectors*. Since 2008, a cross-sectoral national team has: (i) reviewed the achievements of the first national plan of action for food security (2001 to 2007); and (ii) used the lessons learned to develop an improved NFSP for the period of 2009 to 2016. The MoFALI is responsible for implementing the programme under the coordination of a high level inter-ministerial committee.

The programme is built on the following four priority pillars: (i) the enabling environment; (ii) food security; (iii) food safety; and (iv) nutrition. Amongst these four strategic pillars, 27 priority components are specified in the programme. It will be implemented in two 4-year phases: (i) 2009-2012 and (ii) 2013-2016. The Government estimates the indicative budget for the programme to be USD 1,289.23 million with an expectation of mixed financing sources as indicated below:

- Private sector: USD 557.92 million (43.3%)
- Government: USD 446.92 million (34.7%)
- Development Partners: USD 265.32 million (20.6%)
- Local government: USD 16.66 million (1.3%)
- NGOs: USD 2.02 million (0.2%)

## **1.4 DEVELOPMENT PRIORITIES AND MDG**

The Government prepared the Millennium Development Goals (MDG)-based Comprehensive National Development Strategy (NDS) in 2007 and approved as Resolution no. 12 of Parliament in January 2008. It defines a policy for the next 14 years to support human development in the country. Food security constitutes one of key aspects of the Mongolian MDG target outlined in the NDS. Its commitment to **eradicate extreme poverty and hunger** (MDG Goal 1) is evident in the National Food Security Programme (NFSP) approved by Cabinet in February 2009 under Government resolution 32/2009.

## **1.5 National Medium Term Priority Framework (NMTPF)**

The country does not have NMTPF. However, FAO and the Government have agreed to prepare jointly a country priority programme, and are now in a process of identifying consultants who facilitate the preparation processes.

It should be noted that FAO assisted the Government to prepare the NFSP and hold a high level donor consultative meeting on the NFSP under the Formulation of a National Programme for Food Security for Mongolia (SPFM/MON/8801).

## **1.6 United Nations Development Assistance Framework (UNDAF)**

In the UNDAF 2012-2016, it is established as first priority in Mongolia the Sustainable economic development and poverty alleviation. Two outcomes are expected to be produced under this priority: 1. Improved livelihood opportunities with a focus on the poor and vulnerable groups; 2. Policies and strategies developed for poverty reduction. Within these outcomes the UN is expected to support the county to inter alia:

- Develop capacity in vocational and entrepreneurial skills aimed at present and future market demands and promote improved production and marketing skills with the introduction of new technologies and methodologies.
- Promote small-scale vegetable and agricultural production to help ensure food security and adequate levels of nutrition for the most vulnerable groups.
- Assist in formulation and provide advice to align policies and regulations with international norms, standards (...) in agriculture and food, and in the trade and small industry sectors on improving product development and branding and export diversification.

Additionally, under UNDAF's priority 3/outcome 8 – Environment, climate change and disaster risk reduction/Reduced risks and consequences of natural and man-made disasters at national and community levels – it is mentioned that that the devastating dzud in 2009-2010 demonstrated the need for greater disaster preparedness, namely in the agriculture sector

The Integrated Livestock-based Livelihoods Support Programme is aligned with the above mentioned priorities and will contribute to the described UNDAF's outcomes.

## SECTION 2. RATIONALE

### 2.1 PROBLEMS/ISSUES TO BE ADDRESSED

Despite the important role of livestock-based agriculture in the country, the sector has been under-performing, which led to food insecurity, a worsening of poverty in rural areas and out-migration to urban areas. In preparing the GAFSP proposal and project documents, the MoFALI conducted consultation processes with stakeholders including producer associations, donors and NGOs to identify areas that would require immediate attention, potentially supported by the GAFSP. As a result, it identified the following five key areas to be addressed by the programme. These are in line with the NFSP and NLP framework, including:

- (i) **under-developed agro-industries and value chains** remain stagnant and have not improved herder incomes;
- (ii) **inadequate income sources and human diet diversity** due to herders' limited capacity to reduce their dependence upon herding animals as their sole source of livelihood;
- (iii) **under-supported veterinary services** led to slow responses to infectious animal diseases and a low-level of disease surveillance, which in turn undermines the meat export potential;
- (iv) **collapse of a systematic breeding system**, which undermined productivity of livestock partly as a result of inbreeding; and
- (v) **lack of winter fodder reduces livestock productivity and increases the vulnerability of livestock to *dzud*-caused starvation and death.**

#### 2.1.1 Issues on value chains

Due to lack of comprehensive policy and support to develop value chains linking herders and livestock industries, the traditional livestock production sector in rural areas are plagued by poor quality and unsanitary production methods, which impede export of the products and discourage urban middle class consumers. Even though Mongolia's meat and milk production level is self-sufficient for its domestic consumption, the volume of properly processed meat and milk products are as low as 7% and 4% respectively. Most industries in these two sub-sectors use less than 40% of their total operating capacities. Major abattoirs and dairy industries in the target aimags cannot operate throughout the year due to the lack of animal and fresh-milk supply and cold chains. Majority of animals in the project target areas are slaughtered traditionally under unhygienic circumstances. The needed improvements in the food control system, such as Hazard Analysis Critical Control Point (HACCP) has been introduced by FAO, other donors and some private sector companies. However, such practice has not yet widely been extended to ensure Mongolian meat products for export comply with the World Organization for Animal Health (OIE) and World Trade Organization (WTO) zoonosanitary standards.

Informal middlemen or "changers" in the local language play a vital role to link herders to markets throughout the country. They are often owners of established businesses in soum or aimag centres with capacities to access to cash, and aggregate raw materials in rural areas to transport them to Ulaanbaatar. Those middlemen usually do not place value on quality and this weakens incentives of herders to produce better quality animals and raw materials. Due to the lack of raw-material-collection network, agro-industries face fierce competition with

middlemen in purchasing raw materials from herders. There are a couple of national level networks of middlemen who control a large amount of raw materials and speculate prices. They absorb profitable margins of wholesale prices for raw materials (mainly cashmere and wool).

### **2.1.2 Inadequate income sources and human diet diversity**

There is a high incidence of unemployment and poor income generating opportunities in the target aimags and soums. The collapse of state-owned companies during the county's transition to a market economy accelerated unemployment in the target areas. Those unemployed workers became small-scale herders with limited herding experiences; many of these small-scale herders became victims of *dzud* and re-migrated into the rural centres as a result of inadequate experiences in herding and coping with the severe winter. In addition, the young generations who have received educations in soum and aimag centre tend to remain in the centres for their livelihoods and jobs. However, the economy of rural areas has limited capacity to absorb the young educated graduates.

Subsistence herders usually do not engage in other agricultural production such as horticulture. This has inevitably caused inadequate dietary diversity simply relying on excessive consumption of livestock-based food with very limited intake of vegetables and fruits. This results in high level of micronutrient deficiency among them. According to the World Health Organization (WHO), average Mongolian adults consume two times less vegetables than the WHO recommended intake-level.

In order to address the issues of inadequate alternative income sources and human dietary diversity in rural areas, the government has been promoting small-scale agriculture that would provide an alternative income source while at the same time contribute to food security and balanced nutrition among rural households. The newly revised land law of Mongolia allows individuals to own up to 0.5 ha of cropland to cultivate agriculture crops. Reflecting this new opportunity, the numbers of rural families who engage in horticulture production has increased during this decade in the target aimags. However, the numbers of producers are still limited, and the production has remained at the self-consumption level not yet reaching the point where livelihoods are sustained by this alternative source of income.

### **2.1.3 Animal health**

Mongolia's ability to export livestock and livestock-products is constrained by limitations to its animal health status. Transboundary animal and zoonotic diseases have resulted in increasing rates of illness for both human (e.g. brucellosis) and animal populations (e.g. foot and mouth disease). Objective 3 of the NLP addresses this animal disease constraint. Another key challenge in animal health issues in the country is herders' access to veterinary services. Many poor herders cannot afford to pay for the service, and as a result private veterinary services have been undermined and many veterinarians have stopped practising. This situation has led to slow responses to infectious animal diseases and a low-level of disease surveillance, which in turn undermines the meat export potential.

### **2.1.4 Animal breeding**

Mongolia faces multiple issues in livestock genetics. In the absence of any genetic improvement programme animals are just multiplied without major concern for quality and productivity improvement. There is a shortage of males; males are used too long and sire their own offspring leading to inbreeding and inbreeding depression. Hence, the quality of cashmere is declining. In dairy, the current breeding stock has low productivity and can be

improved through the introduction of improved breeds using artificial insemination (AI). Beef cattle fail to meet end-user (exporter) and packer requirements for carcass quality and size. Providing improved dual-purpose bulls from the dairy program will improve carcass quality and growth rates.

### **2.1.5 Animal nutrition**

Nutrition is the single greatest constraint in Mongolian livestock production and the preparation of adequate amounts of livestock feed before winter is critical to the survival of animals. Both the amount and quality of supplementary feeds have declined since transition and the frequency and severity of *dzuds* have increased. There is a great need to improve the availability of good quality livestock feeds to ensure winter survival and to improve reproductive and performance rates. The investments in forage and processed fodder production will relieve critical feed constraints in the participating soums and support the productivity improvements sought in other components of the project.

## **2.2 STAKEHOLDERS AND TARGET BENEFICIARIES**

The FAO-TA activities will provide formal training and on-the-job training. Hence, the direct beneficiaries of the FAO-TA activities are the government officials and stakeholders who will participate in ILBLSP activities.

The indirect beneficiaries of the FAO-TA activities are livestock-based agriculture households who face many challenges in low productivity and are food insecure in five Aimags: (i) Arkhangai; (ii) Bayankhongor; (iii) Govi-Altai; (iv) Khovsgul; and (v) Zavkhan. Each activity carried out under the proposed project will have different approaches in identifying its direct beneficiaries. Based on the targeting strategies, the ILBLSP will work with the following beneficiaries:

- **Linking Farmers to Markets:** ILBLSP beneficiaries include livestock and horticultural households at the soum and aimag levels, who depend on agricultural and animal husbandry products for their livelihood. The secondary beneficiary to this ILBLSP will be processors interested in such partnerships, including in Ulaanbaatar. The income of both producers and processors will be increased through the improvement of supply chains in the relevant subsectors. 20 agro-industries will form Production Partnerships (PPs) with herder groups of at least 50 households. Horticulture production will support 7 initiatives with groups of 50 households, on average, be pro-poor and will focus on female-headed households.
- **Improving Livestock Productivity and Quality:** Animal health initiatives will include veterinarians (public and private), herder animal health groups as well as aimag laboratories and FMD free zone border inspection points and buffer zones. Animal breeding activities include households raising sheep and goats in the traditional herder environment, emerging small-scale dairy producers and beef producers. Animal nutrition programs will involve up to 40 groups of herders, dairy producers and beef producers.
- **Management and donor coordination:** The project will build capacity for donor coordination at the aimag and soum-levels by providing management training to aimag and soum officials and community leaders.

The project will reach around 8,000 direct beneficiaries of which around 2,500 (30%) will be women.

## 2.3 PROJECT JUSTIFICATION

The GoM has adopted a series of policies to support rural livestock-based households, under the NFSP and NLP approved in 2009 and 2010 respectively. Under the NLP, in order to bring changes at the macro level in the sector, the GoM started supporting wool producers through subsidy, providing MNT 2,000 per kg for high quality wool, when producers registered its sales with processors. It is planning to provide similar subsidies to other livestock products including milk. It also plans to establish a commodity exchange throughout the country from 2012, with an aim to increase market transactions of raw materials. On the other hand, the GoM is still searching for a technical and financial support modality for herders to increase incomes and their resilience against risks such as *dzud* while at the same time reducing overgrazing. The undeveloped dairy sector in the five aimags, for example, is unable to provide enough milk for the school lunch program. The quality of raw cashmere and wool is also declining, as emphasis is being placed on quantity but not on quality. Lack of quality males and their prolonged use led to inbreeding. Furthermore, the herders are vulnerable to exploitation by middlemen who take advantage of their lack of mobility and needs of immediate cash income.

After the transition of its economy, both public and private sectors have developed some successful cases in-and-around Ulaanbaatar and in small pockets in rural areas. However, such successful cases have remained limited rather than widely applied due to the lack of developed technical and managerial capacities to deliver effective public and private services and investments. The limited human and organizational capacity is more apparent in rural areas especially in the western aimags. In addition both rural herders and private sector companies do not have an effective strategy to link to each other, while the government remains incapable of supporting them to develop value-chains, which would potentially: (i) add more value to the products; (ii) improve quality and food safety; (iii) create jobs at both rural and urban areas; and (iv) supply growing demand for livestock products to neighbouring countries.

The livestock sector in Mongolia with its unique environment, which could potentially support a large animal population, could help to redress rural poverty by addressing the abovementioned five-problem areas (see section 2.1). This requires changes to traditional livestock production methods that are based on gaining profits from quantity rather than quality. The changes require investments in developing: (a) value chains linking herders to markets; and (b) livestock productivity and quality, **which should adequately be furnished with appropriate technical support to produce safe, high quality products** that would satisfy growing demands in both domestic and international markets.

Given the current lack of a demonstrated and proven workable platform to assist herders in the target areas, it is urgent to equip the GoM with an integrated system which promotes quality livestock production, while at the same time holistically addressing the abovementioned five problem areas of intervention. It is proposed that such an approach will be developed based on GoM's past experiences integrating value-chain development

approaches, while **strengthening human and organizational capacities to deliver increased and more effective public and private investments.**

This proposed programme will be implemented under the NFSP and NLP framework, directly supporting the two programmes. There is a strong indication from the Government, if successful, the results of the ILBLSP will be replicated through the NFSP and NLP.

## **2.4 FAO'S PAST AND RELATED WORK**

This programme largely builds on the following past and ongoing project outputs:

1. **Formulation of National Programme for Food Security for Mongolia** (SPFM/MON/8801) was a milestone for the Government to Mongolia to prepare the National Food Security Programme. The entire process of preparing the programme was supported by FAO from 2008 to 2009.
2. **Increasing the Supply of Dairy Products in Mongolia by Reducing Post-harvest Losses and Restocking** (AG: GCSP/MON/001/JPN) was implemented jointly by Ministry of Food and Agriculture (MoFA)<sup>1</sup> and FAO for 2004 – 2007 with a budget of USD 1,960,918. The overall goal of the project was “to improve food security by providing a sustainable supply of safe milk and dairy products to urban centres in Mongolia”. The success of the project led Government to mainstream the results into a new ten-year National Dairy Programme (NDP) for the period 2007-2016 with the following three focal areas: (i) milk production enhancement, (ii) milk marketing enhancement and (iii) dairy training/capacity building. With the support of this project, the Mongolia Institute of Technology (MIT), a vocational school has developed a comprehensive training programme.
3. MoFA and FAO implemented a project, **Improved meat hygiene and commercial meat processing** (TCP/MON/3105), on meat sector commercialization with a budget of USD 387,000. Major outputs of the project include a National Meat Training and Service Centre added to the MIT, establishment of four Soum level abattoir/meat SMEs and an increased awareness of critical constraints limiting development of the Mongolian meat industry. Based on the experience, FAO launched its follow on project (on-going: 2011 – 2012), **Improving the quality of meat for consumers** (GCP/MON/007/ITA) with an aim to improve meat safety and quality for consumers in Mongolia and export countries. It is designed to cover: (i) introduction of Good Manufacturing Practice (GMP) and Hazard Analysis Critical Control Point (HACCP) systems in the Mongolian meat industry; (ii) strengthened national capacity in improved meat technologies, processes and value addition at the MIT; (iii) soum level abattoir and meat SME establishment (15 abattoir); (iv) improved consumer awareness. The budget is USD 520,000. This on-going project and the proposed programme will work closely to promote GMP and HACCP as well as other activities to improve the meat sector performance.

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<sup>1</sup> Ministry of Food and Agriculture and Ministry of Light Industry merged in 2010 and it became Ministry of Food, Agriculture and Light Industry (MoFALI).

4. **Strengthening early warning for transboundary animal disease diagnosis** (TCP/MON/3101) was implemented from 2006 until 2009 jointly by MoFA, Department of Microbiology and Infectious Disease, the School of Veterinary Science and Biotechnology, and Mongolian State University of Agriculture with support from FAO. The following main results were achieved:
  - National early warning preparedness plans were documented: contingency plan documentation was started under with the primary targets as FMD and sheep/goat pox; and
  - Improved technical and management capacity of staff in epidemiology, and initial subregional-level discussions on TAD control were established between Chinese, Mongolian and Russian authorities.
  
5. **Modernizing and upgrading the national animal breeding programme** (TCP/MON/3104) was implemented jointly by MoFA and FAO for a period of 2009 – 2011 with a budget of UDD 400,000. This project aimed to increase production and productivity of cattle, as well as food security and income of farmers and herders. As a result of the project, a pedigree and performance recording scheme was established allowing for genetic improvement of dairy cattle. In addition, the national Gene Bank was strengthened. The Gene Bank will further be strengthened in the area of Artificial Insemination under the proposed programme.
  
6. **Enhancing Food and Nutrition Security for Vulnerable Segments of the Population of Mongolia through Capacity Building in Small-Scale Vegetable Production** (DCI-FOOD/ 2010/235-397) is under implementation by jointly MoFALI and FAO. The total budget is EUR 1,227,570 covering nine pilot areas, among which three Aimag – Arkhangai, Bayankhongor, Govi-Altai are included. There are five components – (i) Community based group formation; (ii) Capacity building and community empowerment; (iii) Introduction of low cost innovative and environmentally friendly technology; (iv) Supply of critical inputs to improve sustainable vegetable production and consumption; and (v) Assistance for institutional coordination and extension of innovative approaches to food security and nutrition.
  
7. **Improving fodder production, conservation and processing for intensified milk and meat production in the central region of Mongolia** (TCP/MON/3103). This project was implemented for the period of 2007 to 2009. Its specific objectives were: (i) improve farmers' fodder production and conservation technology and to introduce advanced methods so as to increase fodder output as well as to improve livestock feeding practices; (ii) establish appropriate sized fodder systems and supporting facilities; (iii) introduce new improved fodder crops and varieties suited to both the local dry and harsh rainfed environment and refurbished irrigated farms, for seed multiplication and extension of the most suitable fodder crops and varieties. The key project results include: (i) improvement of farmers' fodder production and conservation technologies and livestock feeding practices; (ii) establishment of appropriate sized fodder systems and supporting facilities; and (iii) introduction of new improved fodder crops and varieties for seed multiplication and extension of the most suitable fodder crops and varieties.

8. MoFALI jointly with FAO provided emergency support to *dzud* affected herders in 2010 under the following three projects<sup>1</sup> with a total of USD1.38 million for 2009/2010 FAO Dzud response programme co-funded by the UN Central Emergency Response Fund (CERF), Austria and FAO's Technical Cooperation Programme (TCP). The three projects were implemented in close synergy under the technical guidance of FAO.
  
9. International Atomic Energy Agency (IAEA) through the Joint FAO/IAEA Division implemented a TCP project on **“improving productivity of cattle, camels and yaks through better nutrition and reproductive management”** (2007-2008). This project worked with specialized laboratories to monitor reproductive efficiency using radioimmunoassay for progesterone and to assess the nutritive quality of locally available feed resources using isotopic nutrition tracing and conventional techniques. A state-of-the-art radioimmunoassay and feed evaluation laboratories were set up at Research Institute of Animal Husbandry and the Mongolian State University of Agriculture. The main achievements include the production of feed supplements e.g. urea molasses blocks, medicated blocks for control of parasites and mineral blocks. Additionally, improved nutrition management decreased the input costs for farmers by almost 67%. The production of animal feed crops adapted to the local conditions and improved animal feeding programmes increased productivity and also improved body condition of animals that helped in protecting the animals during the severe winter period. This was demonstrated in selected farms and the practices should now be taken up to other farmers and herders.

## 2.5 FAO'S COMPARATIVE ADVANTAGE

Since Mongolia joined FAO in 1974, FAO has been active in the country in areas of food security and safety, livestock issues, agriculture and others. After the transition around 1990, it carried out a number of the projects (76 projects according to the FAO Mongolia office) and established a firm working relationship with the Government. FAO provided support for the Government to prepare the NFSP through a Formulation of National Programme for Food Security for Mongolia (see above) and played a key role in developing the policy on food security.

FAO has directly dealt with issues raised in the proposed programme in the country and has also a rich history in designing and implementing similar development programmes in other parts of the world. FAO has transferred its specialized knowledge to the government by implementing more than 75 projects in Mongolia but also tailored interventions to the specific situations and constraints identified in the country. As mentioned in the section 2.4, FAO has directly dealt with the issues addressed in the proposed project in its past work. FAO can mobilize the in-house experts who worked in the projects to provide lessons learned and experiences gained in these projects. In addition, it has networks of specialists who can

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<sup>1</sup> i) Emergency assistance to support the livestock-based livelihood system of the most vulnerable Dzud-affected herder families in Mongolia (OSRO/MON/001/AUS);  
ii) Emergency livestock input support to Dzud-affected herders in protection of their food security and livelihoods (OSRO/MON/002/CHA); and  
iii) Emergency Assistance to Support the Livestock-Based Livelihood System of the Most Vulnerable Dzud-affected Herder Families in Mongolia (TCP/MON/3301).

provide technical support from the outside of FAO. It is unique in that it provides independent advice and guidance to the Government, which has contributed to building mutual trust.

The proposed FAO-TA project will have one international CTA and one national ATA. In addition, FAO has an internal technical backstopping team composed of staff who have been involved in the abovementioned projects and have expertise to oversee project progresses through conducting missions.

## **SECTION 3: PROJECT FRAMEWORK**

### **3.1 IMPACT (OVERALL GOAL)**

The project development objective (PDO), which is defined as “Impact” for the FAO Project Document, is **to increase rural household incomes and food security in selected soums through improving productivity, market access and diversification in livestock-based farming systems**. The FAO-TA project aims to support the investment components to achieve the PDO.

The political and economic importance of the ILBLSP is such that, if the expected impact is achieved, there is a strong probability that the approach would be scaled-up through the NFSP and NLP.

### **3.2 OUTCOME AND OUTPUT**

The focus of the FAO-TA project is capacity development of staff of the GoM and key stakeholders who provide support to project target herders. The expected outcome of the FAO component is **strengthened human and organizational capacities to deliver increased and more effective public and private investments**. The FAO-TA component will be fully immersed into the rest of investment activities that are implemented by the GOM while supervised by the Bank. Hence, the following seven outputs are closely linked with the other three ILBLSP components (see Annex 4 for the details of each ILBLSP component and sub-component). All of the expected outputs include activities to prepare guidelines for supporting and implementation modalities for all ILBLSP sub-components. The preparation of such guidelines will be included in the Project Implementation Manual (PIM), which will be prepared at the onset of the project under an FAO-World Bank joint mission (see Activity 6.1 for more details).

#### **Output 1. Enhanced human and organizational capacity to support value chains and productive partnership.**

##### **ILBLSP Investments:**

The ILBLSP aims to establish/reinforce around 20 Productive Partnerships (PPs) along selected value-chains under ILBLSP sub-component one. The project will assist the PPs with the identification of strategies, coordination of activities and strategic investments in improvements in the value chain. This approach would reduce the risks to agribusiness to invest in more remote agricultural production regions and increases the value added (incomes) for herders. The focus would be on linking herders, organized in

groups and/or cooperatives with buyers, most likely processors (meat, dairy and fibre) at the national, aimag and soum levels.

The use of matching grants by the ILBLSP will play a key role in facilitating the necessary formation of productive partnerships. In the past, this method has proved to be very effective in creating and enhancing such value chain partnerships under Bank financed projects in countries such as Vietnam and Colombia.

This output would contribute to the NLP priority area number five: developing targeted markets, establishing processing and marketing structures and accelerate economic turnover through an incentive system.

### **FAO-TA Activities:**

**Activity 1.1: Preparation of value-chains development strategy and supporting modality.** This activity aims to prepare a strategy and guidelines for implementation modality, and test and refine the approach. The strategies and guidelines will be built on past experiences gained in FAO's and other donors' projects. The guidelines include: (i) establishment of PP selection committees at the each target aimag; (ii) the selection procedure; (iii) value chain development supporting modalities to (a) prepare feasibility studies; and business plans; and (b) provide consulting; technical assistance; and (iv) processes for matching grant approval and disbursement. These guidelines will be revised along the course of project implementation.

**Key indicators include:** Guidelines for PPs and value-chain supporting are prepared and revised.

**Activity 1.2: Value chains and business planning training to production partners.** FAO will provide (i) training on business plan preparation; and (ii) direct technical assistance/advice/consulting for partners that participate in PPs to develop value-chains and markets. All these activities will be taking place at all levels including the capital city, and target aimags and soums. The FAO-TA activities will be conducted by the CTA, ATA and FAO staff and/or national and international consultants recruited by FAO.

The training on business plan development will include FAO's RuralInvest, a toolkit that comprises training courses, manuals and custom developed software which provides support to the PIU, Aimag Project Offices (APOs) and other public and private stakeholders, in preparing successful rural development investment projects. Training participants will include GoM and other relevant stakeholders involved in value chain and market development.

**Key indicators include:** The number of people trained in business planning and management.

**Activity 1.3: Feasibility studies and Business planning.** According to the guidelines prepared under Activity 1.1, the FAO-TA will organize investors forums (fora?) at each aimag centre and Ulaanbaatar to select private sector companies. It will also visit the project aimags and soums to evaluate capacities of herders group

which will potentially enter into a public-private partnership (PPP) agreement with the selected private sector companies. Upon concluding the PPP agreement between the private sector companies, herder groups and the IBLSP, the FAO-TA will provide finance and technical assistance to those selected to PPs to prepare feasibility studies and business plans. The FAO-TA will contract out to local consultants and/or NGOs in preparing feasibility studies and business plans. The CTA and ATA will supervise activities undertaken by the contractors and provide advices, as a part of on-the-job training to stakeholders.

**Key indicators include:** (i) The number of investor forums organized; (ii) the number of private sector companies selected; (iii) the number of business plans and feasibility studies prepared and operationalized.

## **Output 2. Enhanced human and organizational capacity to support diversified income generation activities.**

### **IBLSP Investments:**

The IBLSP supports horticulture and soum-level small-scale dairy processing for income diversification and alternative livelihoods for rural families. Activities under the IBLSP sub-component 2 will contribute to increased household incomes, the proportion of income derived from horticulture and vegetable processing, improving the dietary intake/nutrients of the local population as well as small-scale dairy processing. Under the horticulture development activities, the IBLSP will work with seven horticulture development groups (50 members per group) including 3 basic production groups, 2 diversification groups and 2 small-scale processing groups. This would reach 350 direct beneficiaries of which 50% would be women. The target groups will mainly be the soum residents. Besides the beneficiaries of the horticulture development and human nutrient improvement, the IBLSP will also provide for 5 small-scale dairy processing investments for five soums. This would reach approximately 400 direct beneficiaries of which 50% would be women.

### **Investment for Horticulture Development and Human Nutrient Improvement:**

Investment will include fencing, wells, irrigation, storage, equipment and first year inputs as well as a small sorting and bagging facility. This investment is pro-poor and provided through a grant. The second type of investment for the horticulture development will allow established growers to build greenhouses, improve their irrigation systems and plant small fruit and berry plots. Storage capacity will be expanded so they have more potential to market into winter and spring markets. These investments will be made through the match-grant scheme to be developed by the project. The third type of horticulture development investment is for small-scale processing at the soum. These plants will have capacity of 1 mt/day and will allow local growers to add value and shelf-life to their products. Training on human nutrient improvement will be given as a part of these three investments.

### **Small Scale Dairy Development Investment:**

The IBLSP will support investments into small-scale dairy processing plants and training. The processing units will provide the opportunity for herders and intensive dairy producers to process their products locally to add value and to extend the marketing season for their products. These facilities will be owned by a local Milk

Producers' Organization (MPO). The investment package will include all the equipment, tools, facilities, power, water and hygiene systems necessary to ensure safe food production. The accompanying training and technical assistance package will address food safety (on-farm and in the processing plant), processing techniques, marketing, financial management and cooperative management. The total value of each processing plant investment, including training and technical assistance, will be approximately \$100,000 USD.

#### **FAO-TA Activities:**

**Activity 2.1: Preparation of guidelines for supporting modality.** This activity intends to prepare guidelines for the supporting modality for investments on: (i) horticulture development and human nutrient improvement; and (ii) small-scale dairy development. The guidelines will include the selection criteria, and procedures for implementation and grant disbursement. The guidelines will be revised based on the lessons learned in investment activities. As a part of activities, the FAO-TA will (i) identify existing training materials for both horticulture and human nutrient improvement and small-scale dairy development activities; (ii) prepare and enhance training curriculum; and (iii) initiate procurement processes to recruit local NGOs and/or local technicians who will carry out training for horticulture and small-scale dairy development with the target herders or private sector companies.

**Key indicators include:** (i) Guidelines for supporting modality on horticulture and small-scale dairy processing development prepared; (ii) training curriculum and materials are identified and prepared; (iii) local NGOs or technicians to provide support for horticulture and small-scale dairy development are identified.

**Activity 2.2: Training of trainers for horticulture and dairy development.** The FAO-TA will provide training of trainers (TOT) for people to train the ILBLSP beneficiaries. The training will follow the curriculum developed and use the teaching materials identified under Activities 2.1. Potential trainees would include local NGOs and technicians as well as VABU extension agents and the AgroPark staff in the aimag/soums who will be involved in the horticulture, human nutrient improvement, and small-scale dairy development activities.

**Key indicators include:** (i) the number of people trained in TOT.

**Activity 2.3: Beneficiary and land identification for horticulture development and human nutrient improvement.** Using the experiences gained in the on-going FAO project, "Enhancing Food and Nutrition Security for Vulnerable Segments of the Population of Mongolia through Capacity Building in Small-Scale Vegetable Production (DCI-FOOD/ 2010/235-397)", the FAO-TA will identify beneficiaries, lands and water sources for horticulture development activities at 15 soums. The FAO-TA will recruit one local consultant to oversee activities. As a part of the activities, the FAO-TA component will assess site suitability for horticulture development. The activities will also include negotiations with aimag and soum governments to allocate land for the selected beneficiaries. Depending on the availability of groups at the target soums, the FAO-TA activity will also include forming existing soum level producer groups to engage in horticulture development activities. The FAO-TA activities will also support preparing business plans for

small-scale horticulture processing groups to evaluate the profitability of the businesses under activity 1.3.

**Key indicators include:** (i) The number of appropriate sites for horticulture development plots identified; and (ii) no of people and groups identified for the horticulture development and training on nutrient improvement.

**Activity 2.4: Beneficiary and land identification for small-scale dairy development.** FAO's Increasing the Supply of Dairy Products in Mongolia by Reducing Post-harvest Losses and Restocking (AG: GCSP/MON/001/JPN) project which ended in 2007 provides useful lessons for the ILBLSP in developing small-scale dairy processing enterprises. The FAO-TA will recruit one local consultant to identify beneficiaries and organize MPOs at 5 selected soums where dairy potential is high. The activities will also include site identification for both dairy processing plants and cold-chain facilities. Coordinating with Activities 1.1, the FAO-TA will also provide support to MPOs to prepare feasibility studies and business plans.

**Key indicators include:** (i) The number of appropriate sites for small-scale dairy processing plants identified by the target soum governments; (ii) the number of MPO and people engaged (including supplying milk to the plants) in small-scale dairy enterprises; and (iii) the number of feasibility studies and business plans are prepared.

### **Output 3. Enhanced organizational and human capacities in conducting animal health improvement and surveillance activities.**

#### **ILBLSP Investments:**

The ILBLSP animal health sub-component will support the development of export markets through strategic planning for export development, bilateral negotiations and strengthening of disease free zones, veterinary services and individual veterinary and para-veterinary capacity. The Activities include: (i) defining a "roadmap" for meat export; (ii) supporting trade negotiations; (iii) raising the knowledge and skills of veterinarians and paraprofessionals; (iv) strengthening the FMD free zone; and (v) upgrading animal health services and disease surveillance. Project investments will be made into: (a) soum animal handling and veterinary equipment; (b) border inspection posts (BIP) and buffer-zone check points; (c) cold chain equipment; and (d) aimag laboratory equipment. By improving access to export markets and by improving the health status and productivity of livestock, the component will contribute to improved household incomes and the proportion of total income earned from agriculture.

This output would contribute to the NLP priority area number three: raising the veterinary service standard to international levels and protecting public health.

#### **FAO-TA Activities:**

**Activity 3.1: Compilation of animal health baseline data.** In order to support activities mentioned above, this activity aims to prepare baseline data of the five target aimags on (a) livestock population; (b) veterinary manpower; (c) cold chain for vaccination and sample collection; and (d) five aimag laboratory capacities –

both equipment and human resources. In addition, this activity also includes assessments on training needs, soum development master plans and border inspection points (aimag borders, zone borders, national borders) by conducting field visits. These activities will be conducted during six months at the onset of the project.

**Key indicators include:** Four baseline studies: (a) livestock population; (b) veterinary manpower; (c) current capacity of cold chain for vaccination and sample collection; (d) current capacity of five aimag laboratory are prepared; (e) an assessment report on border inspection points is prepared; (f) procurement and implementation plans are prepared for activities on raising (iii) the knowledge and skills of veterinarians and para-vet-professionals; (iv) strengthening the FMD free zone; and (v) upgrading animal health services and disease surveillance.

**Activity 3.2: Animal health and meat export strategy and supporting planning.** As a result of the baseline data compilation, this activity intends to prepare detailed plans for the abovementioned five intended activities: (i) defining a “roadmap” for meat export; and (ii) supporting trade negotiations, which will include training to the meat export negotiators.

These two activities: (i) defining a “roadmap” for meat export; and (ii) supporting trade negotiations will be conducted by an international consultant on meat trade (the TOR is provided in Annex 5). The FAO-TA activity will also follow-up the road map for meat export prepared by the meat trade specialist and assist the Chief Veterinary Officer (CVO) of the country in reviewing the progress with meetings with OIE missions and bilateral meat trade negotiations.

**Key indicators include:** (i) a strategy for meat trade is prepared; and (ii) number of meat export negotiators trained.

**Activity 3.3: Animal health improvement planning.** Based on the results gained under Activity 3.1 and 3.2, the FAO-TA will prepare detailed procurement and implementation plans for the abovementioned: (iii) raising the knowledge and skills of veterinarians and paraprofessionals; (iv) strengthening the FMD free zone; and (v) upgrading animal health services and disease surveillance. The planning will be carried out in close collaboration with the NLP in preparing the guidelines and procedure adaptable to the programme. These plans will also include training for VABU extension agents to build the basic capacity that the VABUs will need to be able to support the animal health investment component.

**Key indicators include:** (i) detailed animal health improvement investment plans are prepared, including: (a) soum animal handling and veterinary equipment and training delivered; (b) BIP and buffer-zone check points; (c) cold chain equipment; (d) aimag laboratory equipment; and (e) upgrading animal health services and disease surveillance and training.

#### **Output 4. Strengthened organizational and human capacities in providing systematic breeding support to herders:**

##### **ILBLSP Investments:**

An increase of income for herders from the same or reduced number of animals will only be achieved with increased individual animal productivity. A genetic-improvement programme will provide the herders with animals that have potential for increased productivity. With the economic changes in the country, it can also be speculated that to create employment and to add value to the raw products of wool and fibre, more processing facilities will be established in the aimags and consequently there will be more interest to obtain higher-quality cashmere raw material at a premium price. Genetic improvement is slow, but it is permanent; once progress is achieved it is anchored in the genome and expressed from generation to generation. It is also cumulative; a continuous process and progress will be added every generation. Finally, it is multiplicative; there are ways and means to multiply the progress achieved in a small nucleus to a large number of animals. This output under the ILBLSP sub-component 2-2 will address both breeding management and genetic improvement through the following investments in sheep and goats, dairy cattle and beef cattle:

- (i) **Sheep and cashmere goat genetic improvement:** the ILBLSP will establish a total of six nucleus herds of cashmere goats (four) and local sheep (two). The herds will be supported by a genetic selection programme that will monitor economically important traits. The focus will be given to on locally adapted breeds and will contribute to genetic conservation and sustainable development of local breeds. The nucleus will supply improved male animals for the male flocks which are being set-up to provide improved males for a multiplier level. The multiplier level in turn will provide improved males for the broad production level. A total of fifteen 15 male flocks will be established. In addition, the project will provide support to develop markets for the use of genetically improved animals.
- (ii) **Dairy improvement:** the ILBLSP will strengthen artificial insemination (AI) capacity by equipping AI technicians with tool kits and frozen, improved semen from suitable dual-purpose cattle breeds will be provided. Equipment will be purchased and installed at a national-level institution to secure affordable local supplies of liquid nitrogen (LN), something that does not now exist in the country. AI technicians will receive upgrading training in AI.
- (iii) **Beef breed improvement:** the ILBLSP will provide improved beef bulls (275) to herders and herder groups under the PPP to be established between the GOM and the private sectors (see Activity 1.2). The beef bulls will be obtained through the Dairy Herd Improvement Programme (DHIP), which uses the Simmental breed, a classical dual purpose breed for meat and milk. It is suggested to use surplus bulls from the DHIP for natural mating in the traditional environment.

This output would contribute to the NLP priority area number two: improving animal breeding services and increasing the productivity and production of competitive, high quality, bio-clean products and raw materials.

#### **FAO-TA Activities:**

**Activity 4.1: Development of guidelines and procedure for cashmere goats and sheep genetic improvement.** This activity aims to set up guidelines and

implementation procedures for (i) the development and management of six nucleus herds; and (ii) the procurement and management for the 15 male flocks including the loan system to herders. This activity will be conducted in a close relationship with the NLP in preparing the guidelines and procedure adaptable to the program.

**Key indicators include:** Guidelines for cashmere goat and sheep genetic improvement support are prepared and revised.

**Activity 4.2: Support the research for cashmere goat and sheep genetic improvement.** This research activity will be conducted by both Gene Bank and the Research Institute for Animal Husbandry (RIAH) with the technical assistance from an FAO international consultant (the TOR is provided in Annex 5). Data gathered from the field will be processed at the data unit of the Gene Bank, which has experience in data processing under the funded the DHIP. The international genetics consultant will advice on the improvement of the database that has been developed for the DHIP and will further develop the supportive genetic selection programme for the six nucleus data. The breeding unit of the RIAH will provide scientific support to the analysis and also undertake the wool and fibre analysis with its fibre-testing laboratory.

**Key indicators include:** (i) A database for sheep and cashmere goat genetic improvement is enhanced; and (ii) the field data are analysed and a research paper on sheep and cashmere goat genetic improvement is drafted.

**Activity 4.3: Dairy Improvement through AI.** This activity aims to prepare the guidelines for service modality and procedures including the appropriate service fees and follow-ups for AI services. The FAO-TA component will also provide upgrading training to the AI technicians and dairy breeders associations.

**Key indicators include:** (i) Guidelines for AI service modality and procedures are prepared and revised; and (ii) the number of AI technicians received upgrading training.

**Activity 4.4: Beef breed improvement.** This activity will be conducted in close relationship with Activity 1.2 under the collaboration with the Dairy Breeders Association (DBA) which is being established with assistance from the Gene Bank. The DBA will play a role as the intermediary between herders and private sector companies and the organizer of the annual auction sales of bulls. The of role of FAO-TA activities is to: (i) identify potential private sector beef production companies to be developed under the PPP agreement and recipient herders with the DBA; and (ii) establish service provision modality and procedure; (iii) prepare procurement plans; and (iv) technical assistance for data recording. The service provision modality will take into consideration that the Simmental blood in the local females should not go beyond 50% because of the climatic and environmental adaptation issue.

**Key indicators include:** (i) Guidelines for beef breed improvement service modality and procedures are prepared and revised; (ii) number of private sector companies to be involved are identified; (iii) improved beef cattle procurement plans

are prepared; and (iv) a simple database for improved beef performance recording is prepared.

## **Output 5. Developed organizational and human capacities in providing a fodder production:**

### **ILBLSP Investments:**

The investments in forage and processed fodder production under the ILBLSP sub-component 2-2 will relieve critical feed constraints in the participating soums and support the productivity improvements sought in other components of the project.

- (i) **Medium scale forage stand establishment:** the ILBLSP will establish fenced and irrigated forage crops will be established on 10 to 20 hectares depending on the agreement made with the target soums and herders groups. Equipment and storage facilities will be provided. This investment will allow for smaller areas of forage for nucleus herds and male flocks and for dairy farmers or herders to secure winter fodder. The provision of storage will allow forage to be stored in reasonable condition for two or more years.
- (ii) **Large-scale forage stand establishment:** Where suitable land and water is available, the ILBLSP will establish large plots of forage on 50-100 hectares. It is anticipated that around 2 soums will be selected for the larger size plots. This size of plot optimizes the investment into equipment and fencing and building significantly more production capacity. These large investments would support cooperative livestock grow lots (feedlots) or groups of dairy farmers or herders wishing to secure individual winter supplies.
- (iii) **Small-scale fodder processing:** the ILBLSP will provide very small scale fodder processing units at the soum-level. These could be owned by formal herder groups or khot ails. These units will be provided through grant financing.

This output would contribute to the NLP priority area number four: developing livestock production that is adaptable to climatic, environmental, and ecological changes with strengthened risk management capacity.

### **FAO-TA Activities:**

**Activity 5.1: Preparation of fodder production supporting modality.** This activity aims to prepare the supporting modality for: (i) medium scale forage stand establishment; (ii) large-scale forage stand establishment; and (iii) small-scale fodder processing and storage. The activities will include the selection criteria, procedure and guidelines as well as guidelines for disbursing grants.

**Key indicators include:** (i) Guidelines for fodder production support modality are prepared and revised.

**Activity 5.2: Fodder production training preparation.** The fodder-production herders groups will be supported by participatory training and farmer-focused research. Nucleus herds under activity 4.1 and dairy improvement under activity 4.3 could be used for demonstration purposes so that herders and dairy producers in the

industry at large can better understand the relationship between nutrition and productivity. The FAO-TA will prepare the training materials, which address livestock nutrition and the link to productivity, production of feeds, feeding programmes for various types of livestock and for different needs including maintenance, growth, reproduction and productivity.

The RIAH has conducted forage and fodder production research and training under the SLP, and therefore, the research results and experiences gained by the SLP will be used as a resource in this activity. The FAO-TA will also support the planning of fodder production training. Working with the MoFALI National Fodder Program, which is establishing forage multiplier farms as a source of forage seed, the FAO-TA will assist aimag and soum governments to prepare feasibility studies for the partner herders groups, assessing soils, possible fodder crops and water availability.

**Key indicators include:** (i) the number of training materials prepared; (ii) training plans are prepared; and (iii) the number of feasibility studies prepared.

## **Output 6. Effective institutional and governance framework enabling project planning, operation, and sustained results:**

### **ILBLSP Investments:**

The IBLIP will finance essential coordination, monitoring and fiduciary functions of the Projects Implementation Unit (PIU) in the MoFALI and the aimag project offices (APOs). Funding will be provided for essential incremental staff, consultants, operating costs, some technical assistance and training, M&E activities, special studies and impact assessments, information dissemination and annual audits. Aimag and soum coordination functions will also be supported through Bank finance, while FAO will provide the CTA and ATA to supervise and support project implementation and management.

This output would contribute to the NLP priority area number one: the formulation of a favorable legal, economic and institutional environment for sustainable development and good governance.

### **FAO-TA Activities:**

**Activity 6.1: Preparation of Project Implementation Manual.** This activity aims to prepare the PIM. Under the leadership of the Project Director (PD) and Project Manager (PM) with support from the CTA, at the onset of the ILBLSP inception, FAO will finance the preparation of the PIM by dispatching a mission and a kick-off workshop to share the PIM with project implementers at the national and aimag levels. This will jointly be prepared with the Bank incorporating Bank's rules and guidelines. The PIM details the implementation arrangements for the project under the agreement signed between the World Bank, and GoM, as well as FAO and GoM. The PIM guides the operation, management and governance of the project, describing guidelines and implementation procedures of all activities mentioned above. It should be adopted by the Project Steering Committee (PSC). This

document will be treated as a living document and have to be revised based on the field experiences.

**Key indicators include:** (i) PIM is prepared and revised.

**Activity 6.2: Preparation of project implementation plans.** The CTA and ATA will contribute to the PD and PM as well as other members to prepare annual implementation plans, budgets and procurement plans, following the PIM.

**Key indicators include:** (i) annual implementation plans are prepared.

**Activity 6.3: On-the-job training.** Day to day project operation requires constant back-stopping to improve quality of service delivery to the project beneficiaries. This activity aims to provide technical support for the abovementioned ILBLSP activities by providing advice to the project staff, stakeholders, and GoM staff. On-the-job training will mainly be provided by the CTA and ATA as well as FAO technical back-stopping missions.

**Key indicators include:** To be decided.

## **Output 7. Effective system in place for project monitoring, reporting and sharing lessons learned.**

### **ILBLSP Investments:**

Overall responsibility of the project monitoring, evaluation, and reporting rests with the PIU. Day-to-day duties will be carried out by an M&E officer at the PIU. This M&E officer will closely work with aimag facilitator in each aimag and soum focal point at each soum. All of them will receive training for the specific tasks to be fulfilled (see Training Plan). Other professional staff of the PIU, MoFALI and aimag agricultural agencies will also be trained to gain good understanding of M&E.

This output would contribute to the NLP priority area number one, same as Output 6: the formulation of a favorable legal, economic and institutional environment for sustainable development and good governance.

### **FAO-TA Activities:**

**Activity 7.1: Preparation of monitoring plans.** Monitoring and Evaluation (M&E) of the proposed project follows the guidance provided by the M&E plan (<http://www.gafspfund.org/gafsp/content/monitoring-and-evaluation>) prepared by the GAFSP steering committee, with some adaptation to the technical assistance and capacity development nature of the project. The project will develop the following three monitoring systems: (i) Management Information System (MIS); (ii) progress monitoring system; and (iii) independent process monitoring system. The FAO-TA will provide technical assistance to prepare the plans for the abovementioned three systems and help the design of the MIS at the onset of the project implementation.

**Key indicators include:** (i) a detailed monitoring plan is prepared; and (ii) the design of the M&E is prepared.

**Activity 7.2: Donor coordination.** The focus of ILBLSP's donor coordination will mainly be given to implement national disease control programs for FMD and Brucellosis in the project aimags and soums. Using the results of each activity above, and M&E, the FAO-TA will provide technical support for the ILBLSP to conduct aimag and soum level donor coordination.

**Key indicators include:** The number of donor coordination meetings conducted.

### 3.3 SUSTAINABILITY

The GoM's commitment to the sustainable development of the livestock sector is shown by its approval of the NLP in 2010. The NLP has been allocated no less than 3% of the national budget on an annual basis until 2021. The FAO-TA activities support the main objectives of the NLP and the ILBLSP may act as a pilot programme for the NLP on a national basis. If successful, the results of the ILBLSP will be replicated through the NLP.

- ***Institutional sustainability:*** The FAO-TA will work with aimag staff and the newly formed Veterinary and Animal Breeding Unit at the soum level (VABUs) strategically as to build their capacity within their dictated mandate while using sub-contracting to NGOs or local consultants for the delivery of services, especially in the area of extension, which as a result will enhance institutional capacity that lead to the institutional sustainability.
- ***Technical sustainability:*** The technical systems proposed have been identified through a review of best practice and lessons learned. Technologies will be relatively simple and not require post-project technical back-stopping. Technology dissemination at the ground level will include farmer-led mechanisms (herder groups, lead farmers, associations) to build sustainability. The genetic improvement program will preserve the best indigenous Mongolian breeds, which are now at risk.
- ***Social and environmental sustainability:*** Socially, the ILBLSP will target marginal and poor herders and soum residents, thus avoiding elite capture and maintaining broad grassroots support. Soil and water conservation programs and perennial forage management will enhance environmental sustainability.

It is important to note that the sustainability of FAO-TA and the abovementioned sustainability aspects will depend upon the successful implementation of the investment components.

### 3.4 RISKS AND ASSUMPTIONS

#### 3.4.1 Dzud and Drought

The major risk imposed upon the proposed programme is another event of drought and followed by *dzud*. The programme will conduct training on animal productivity improvement where simple techniques to cope with *dzud* such as effective winter shelter improvement and fodder storage will be taught. The activities for animal nutrition will finance each Soum to produce more fodder for winter feed and establish hay stockyards, which would minimize the

effect of *dzud*. The project will also finance rehabilitation of wells, which would reduce risks of water deficiency during drought.

#### **3.4.2 Changes of Private Sector Partners' Priorities**

A possible risk would be to lose the interest of private sector partners on keeping working with herder groups. The supply chain establishment with herder groups would be beneficial for the participating sector companies, but it would also require efforts to keep such chains active. Normally, private sector companies have different businesses in order to minimize high-seasonality and maintain income sources throughout the year. There are always opportunities for the private sector companies to earn better profits in other enterprises and therefore chances to lose interest in working with herders. In order to minimize such risks, the project will screen the potential partners vigorously with a set of selection criteria. The FAO-TA will also provide support to the private sector partners in preparing feasibility studies and business plans, introducing financial institutions, providing technical assistance, and exploring better markets. In addition, the ILBLSP will provide support herder groups to be organized and develop their capacities to participate in supply chains. These project inputs would reduce potential workload for the private sector partners in working with herder groups.

#### **3.4.3 Difficult to Break Tie with Old Trading Partners (Middlemen)**

Rural poor herders are sometimes desperate for cash. They often get loans from middlemen in exchange for raw materials. It cannot be expected that herders would change old habits easily and fully participate in the project activities even if they understand that it would be more beneficial for herders to follow the proposals to work with private sector partners presented by the ILBLSP. In addition, middlemen are usually established business persons in Soum centres and it would be difficult to break business ties with such establishments. The ILBLSP will inform potential risks of cutting business linkages with old trading partners when organizing herders into groups to work with private sector partners. The process will be transparent, open and voluntary.

#### **3.4.4 Commodity exchange**

The Government is planning to create a commodity exchange throughout the country. All raw materials produced by herders are supposed to go through the commodity exchange when established. However, the effects of commodity exchanges on project activities are still unknown. The project will maintain a close communication with the section responsible for commodity exchange within MoFALI to evaluate how it would affect project activities and target herder communities.

#### **3.4.5 Lands for Vegetable Production**

Due to changes of herding practices nowadays, herders tend to move less; they usually move around four times per year (spring, summer, autumn, and winter) within their traditionally identified territories. The project needs to start identifying beneficiaries during winter; provide basic training and input materials in spring; and provide direct technical support during summer. Those who live in soum centres are characterised as semi-nomadic herders. They often have some family members who take care of herds outside of soum centres, but the majority of family members live in houses in soum centres. Those beneficiaries within soum centres have to have lands near soum centres, and such lands have to be allocated by soum government and have to have some irrigation systems or access to water.

## **4. IMPLEMENTATION AND MANAGEMENT ARRANGEMENTS**

### **4.1 INSTITUTIONAL FRAMEWORK AND COORDINATION**

#### **4.1.1 Overview**

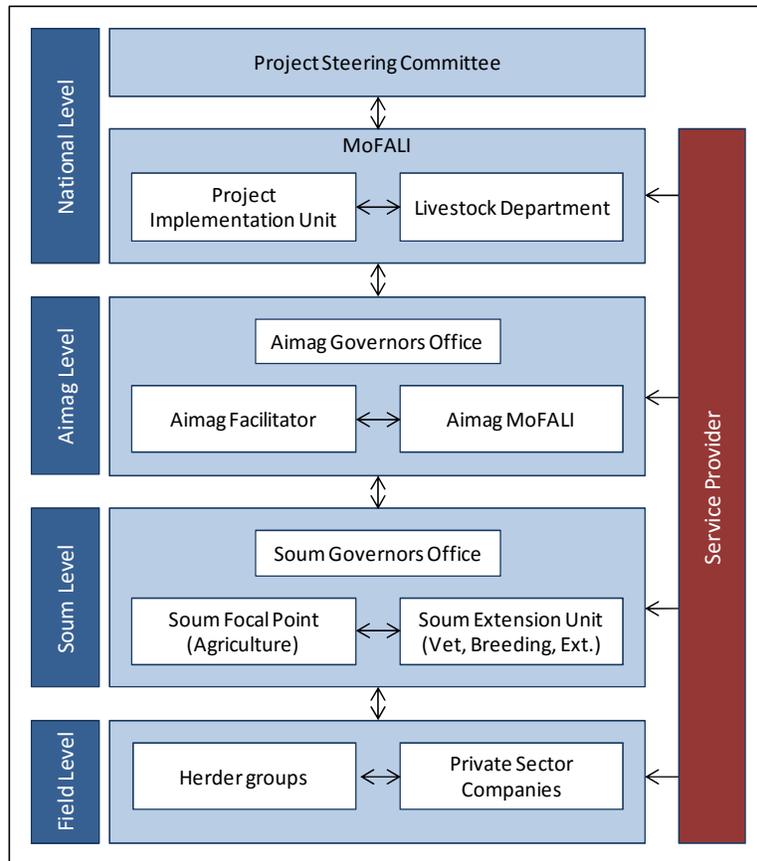
Management responsibility for implementing project activities will be distributed between government agencies at national, aimag and soum level. Management of project activities is largely decentralized to the aimag and soum levels, with the relevant technical support and capacity building by the national agencies and the Project Implementation Unit (PIU). It is intended that project implementation should promote open, transparent and democratic processes that strongly support the participation and capacity building of herder groups and private sector partner companies in the implementation process.

A Project Steering Committee (PSC) will provide direction and guidance, and ensure coordination among and between agencies and aimag and soum governments. The PIU will provide daily operational support for project implementation to aimag and soum governments and agencies. It will also be responsible for overall implementation of export promotion and market development as well as other activities conducted at the national level. Field implementation of project activities will be the responsibility of project aimags and soums. The PIM that details project implementation modality will be prepared at the early stage of the project. The project aimags and soums will use it in implementing project activities at the field level under supervision of aimag facilitators and the PIU.

Field activities will be carried out by herder groups and private sector partner companies under the support of the project. Contracted service providers at soum, aimag and national level will deliver most of the capacity building and technical services required by the project.

Figure 1 below provides a simplified conceptual diagram of project organization. The detailed responsibilities of the institutions to be involved in the Project at each administrative level are described below.

**Figure 1. Organization Chart**



#### 4.1.2. Project Steering Committee (PSC)

The PSC will be responsible for providing oversight of project implementation and management for the achievement of the project’s development objective. It will be supported by the PMU, which will act as its secretariat. For the sustainability of the project, the PSC will be responsible to institutionalize and scale-up the project results through the NLP. The PSC will meet at least twice per calendar year. The main functions of the PSC will be:

- To provide appropriate support and ensure sectoral coordination for effective implementation of the proposed project;
- To review, approve and amend the PIM; and
- To approve annual budget and plans.

#### 4.1.3 Project Implementation Unit (PIU)

The proposed project comprises of both the investment components supervised by the Bank and the TA component by FAO. The FAO-TA component is entirely integrated into the project framework. The PIU will be installed within the MoFALI and have overall responsibility of project implementation. The PIU shall be responsible for day-to-day operations and prepare the annual work plan including a procurement plan and budget. They will report technical and financial progress to the PSC on a semi-annual and annual basis. The FAO-TA component will coordinate activities in the start-up period, including involving consultants as required, ensure activities in the ‘Full Implementation’ period are implemented on time and monitor progress and results.

It will provide technical and managerial support to aimag and soum governments to carry out field activities. The PIU will be staffed with a Project Director (PD), a Project Manager (PM). Under the guidance of the PD, the PM will be responsible for implementing day-to-day project operations with support from other project staff members. Other project staff recruited by the GoM with the GAFSP funding including:

1. Value chain and market development specialist;
2. Animal health specialist;
3. Animal breeding specialist;
4. Horticulture and human nutrient specialist;
5. Animal nutrient/fodder production specialist;
6. M&E officer;
7. Communication officer;
8. Accountant and Procurement officer;
9. Secretary; and
10. Drivers.

The TORs for the specialists and officers are provided in Annex 5.

It is envisaged that the FAO will recruit these project staff for a period of six months during the FAO-start up period. The PIU staff will be supervised by the CTA and ATA during the first 6 months. Project and team management will be the responsibility of the PD and PM once the Work Bank financed project starts. The selection of these staff will be jointly conducted by the MoFALI, FAO and the Bank.

#### **4.1.4 FAO-TA staff**

Day to day activities under the FAO-TA component will be implemented by both an international Chief Technical Advisor (CTA) and a national Assistant Technical Advisor (ATA). The ATA will combine one of specific technical area of the abovementioned PIU staff. Both advisors will be recruited by FAO with approval of the GoM. They will be located in the PIU office and provide technical and managerial advice to the PD and PM, as well as other PIU staff members in carrying out project activities based on the PIM and annual work plans. The period of assignment for the CTA will be for the first two years, while the ATA will be recruited for the entire project period. These two advisors will follow the rules and guidelines of GoM and FAO in carrying out their duties and be responsible for the delivery of the expected outputs described in the TORs.

#### **4.1.5 Aimag and Soum Level Institutional Arrangement**

##### **Project Coordinators at Aimag**

With the ILBLSP funds, an Aimag Project Office (APO) will be established in each project aimag and be staffed by an Aimag Project Coordinator (APC), an administrator, a bookkeeper and a driver. Staff selection and hiring will be made by the PIU. An Aimag Coordinating Committee (ACC) will be established under the guidance of the PIU. The project facilitates partnerships between agribusiness and producers and will incorporate local governor offices as crucial members of the implementation process. The development of value chains and markets will involve not only private sector companies but also soum governments and different sectors, which may go beyond MoFALI's jurisdiction. Therefore, the facilitator will report to both MoFALI and the governor of Aimag and coordinate the work through the governor's office.

### **Department of Food, Agriculture and Light Industry at Aimag**

The role of Department of Food, Agriculture and Light Industry (DoFALI) places itself at the mezzo-level between MoFALI and soum agriculture unit. The role of DoFALI at the target aimags will fulfil its responsibilities by supporting the project soum to carry out field activities with soum governments, herder groups and private sector partner companies. In relation to development of livestock-based farming, this includes (i) direct support to private sector partner companies to develop a value chain with target herder groups; and (ii) coordination, technical assistance and policy guidance to the project soum governments.

The DoFALI will participate in project activities for capacity building for vegetable production, animal health, animal breeding and animal nutrition; and public awareness relating to food security and safety and hygiene. In addition, the DoFALI will take a leading role of donor coordination at the aimag level and dissemination of project experience.

### **Soum Government**

The soum Government in the project soums will play a vital role in implementing project activities with herder groups. To facilitate the participation of a relevant range of stakeholders at the strategic level of the programme, representatives from herder organisations, cooperative organizations, small farmers and banks could be included at the project support offices at both the national, aimag levels. The office of the Governor at the soum level is expected to host a unit where the component is implemented.

Soum governors will identify a focal point of the project from its staff and the focal point will have the primary responsibility for implementation including delivery of project interventions related to herder group identification; developing breeding unit; and coordinating herder groups to receive services from the project including inputs and training. Under the focal point, soum governments task project activities to the newly established extension unit composed of (i) extension worker; (ii) veterinarian; and (iii) animal breeding, and include the identified project activities into their annual work plans.

At the soum level, the rural communities themselves will play a central role in project implementation, through the local soum government and the Soum Coordinating Committee. With the passing of the Integrated Budget Law anticipated in 2012, soum governments assume more fiscal resources and responsibilities. The project will work with the soum governments to strengthen strategic planning and donor coordination, as it relates to the successful implementation of this project.

Soum-level support will also be required. A fulltime Soum Coordinator (SC) will be hired in each soum to organize events, logistics and procurement. The SC will be hired by the PIU with input from the APO. A Soum Coordinating Committee (SCC) will be established under the guidance of the PIU and the APO.

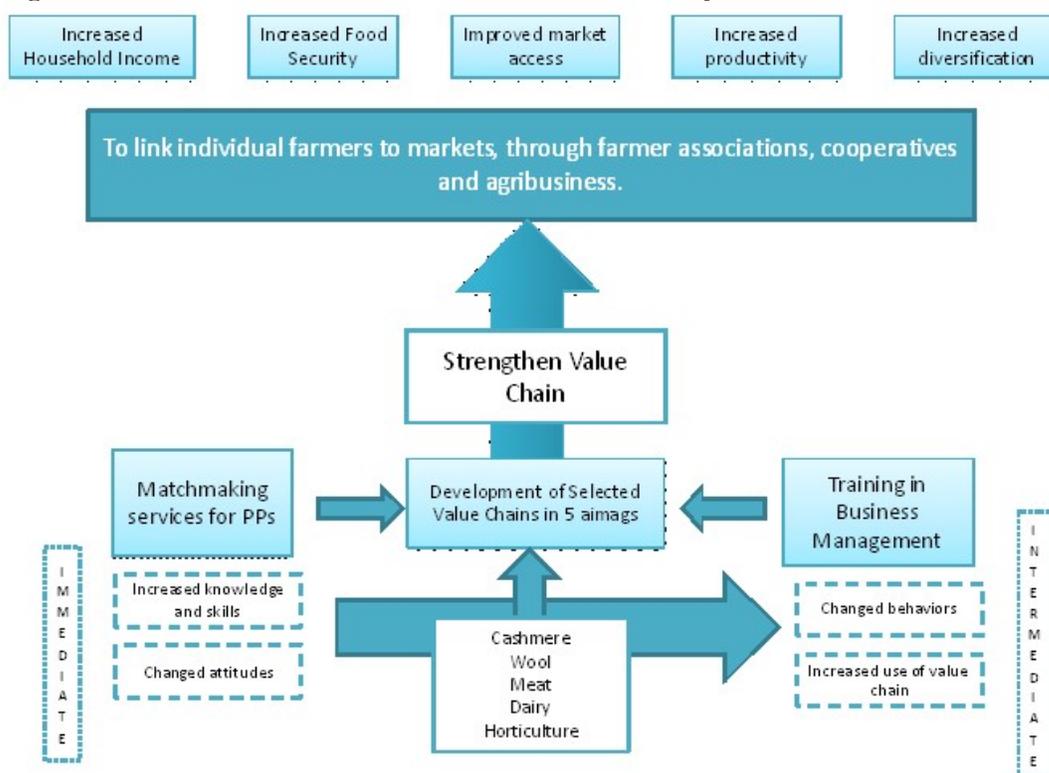
### **4.1.6 FAO Lead Technical Unit (TU)**

The lead technical unit of the FAO-TA component will be the FAO Regional Office (RAP). Acting as the Lead Technical Unit (LTU), the RAP will draw upon its own and other FAO divisional expertise to provide necessary technical advice to the PIU through the CTA and ATA. It will also use its technical network both at the national and international institutes, service providers, and consultants for its TA missions.

## 4.2 STRATEGY/METHODOLOGY

The proposed project is complex, implementing five sub-components: (i) value-chain development; (ii) horticulture production and dairy development; (iii) animal health; (iv) animal breeding; and (v) animal nutrition in the five selected aimags; all of which would require different approaches. In order to integrate different sub-component activities into a consolidated and harmonized impetus, the project centres upon the value-chain development as the core pillar of the project, approaching each project activity based upon the value-chain perspective.

**Figure 2: Activities and Results of Value Chain Development**



### Implementation Strategy

In order to achieve the PDO with the GoM and the Bank, FAO will dispatch a CTA and an ATA from the onset of the project to prepare and initiate necessary actions. They will play a crucial role in providing technical and managerial support to the PD, PM and other PIU staff. They will work on not only the FAO-TA activities, but also provide support to the investment activities. At the onset of the project, FAO will also dispatch a mission to prepare the PIM, which will lay out all necessary procedures of project activities as well as managerial issues. The preparation of the PIM will be conducted jointly with the Bank so that Bank's operational rules and procedures will be fully integrated into the PIM. Toward the end of the PIM preparation, the project will hold a week-long training and validation workshop on the PIM for the project staff from both the central and aimag levels to share the project concepts and procedures. During the workshop, detailed work plans will also be discussed among the participants from aimangs.

### **4.3 GOVERNMENT INPUTS**

The MoFALI will be responsible for implementing the project. It will provide office space for the PIU within its premises (HQ in Ulaanbaatar) as well as covering all utility costs for the maintenance of the office. It will also make its staff at the national, aimag and soum levels available to work with the project. The MoFALI will liaise closely with the governors at the the project target aimags and soums to gain support for the field activities. Each aimag will also provide office space for the project. The MoFALI will ensure support from its subordinate agencies including (i) the SME agency and its incubator centres; (ii) Gene Bank; and other agencies, which include aimag and soum level staff and offices. In addition, the MoFALI will provide logistical support including provision of vehicles when conducting field activities during the first year of the project until the procurement of vehicles are completed under the investment component.

### **4.4 DEVELOPMENT PARTNERS INPUTS**

The proposed project will be financed by the GAFSP. The project will jointly be supported by the World Bank and FAO. In the development of value chains and markets, the project will work closely with local NGOs as well as local consultants.

It is envisaged that the matching grants under the investment components will be given to the project herder groups, but there is no financial support to be given to the private sector companies. The proposed project will play a role of matchmaking between the banking sector and the private sector companies, which will enter into a contract with the herder groups on PPs. In addition, there are couple of projects (i.e. Asian Development Bank: ADF, and International Fund for Agricultural Development: IFAD), which provide credit to private sector companies and herder groups. The proposed project will work with these development partners as appropriate.

### **4.5 TECHNICAL SUPPORT/LINKAGES**

The Lead Technical Unit for the FAO-TA project will be the FAO-RAP office, which will provide backstopping and technical guidance throughout the lifetime of the project. With the facilitation of the LTU, a technical backstopping team will be established composed of staff members from:

- (i) Rural Infrastructure and Agro-Industries Division – support activities on value chain and market development;
- (ii) Animal Production and Health Division – support activities on animal health, breeding and animal nutrition; and
- (iii) Nutrition and Consumer Protection Division – support activities on human nutrition and horticulture production.

FAO will also draw upon national and international consultants as well as national and international service providers, who will also be mobilized under the supervision of the LTU.

This FAO proposal has been reviewed by the FAO technical backstopping team. The members or consultants recommended by the team will be participating in the project inception meeting where the team will jointly prepare the PIM with the government and Bank staff. The PIM will detail the implementation arrangements and guide the PIU the operation, management and governance of the project.

#### **4.6 MANAGEMENT AND OPERATIONAL SUPPORT ARRANGEMENTS**

The project will be implemented through a Unilateral Trust Fund (UTF) agreement between the Government of Mongolia and FAO. Under this UTF, FAO will provide technical assistance to the project implementation team day-to-day operation by the CTA and the ATA.

Technical support will be provided by the LTU in Bangkok, while operational support will be provided by the FAO Representation office responsible for Mongolia. With long experience of FAO's involvement in the Mongolian livestock sector, the LTU will be in the position to mobilize all necessary technical support.

### **5. OVERSIGHT, MONITORING, MANAGEMENT INFORMATION, AND REPORTING**

#### **5.1 OVERSIGHT, SUPERVISION AND REVIEWS**

While FAO will implement this TA component, it was also selected to be the Supervising Entity (SE) of the component. This will imply SE's visits, which will be coordinated with World Bank supervision missions. It is envisaged that field visits be conducted by the SE to the country three times: (i) around inception period; (ii) mid-term evaluation; and (iii) implementation completion. Supervision activities will consist of reviewing implementation progress and challenges, disbursement performance, level of satisfaction of participating stakeholders, administration and management issues, other issues raised by the Government and the PIU as well as provide recommendations and counter-measures against identified issues.

In order to mitigate the risk of conflict of interest, the two functions (implementation and supervision) will be the responsibilities of separate units in FAO. While the FAO Representation (budget holder) with support from the LTU in FAO-RAP will be responsible for project implementation, the FAO Investment Centre (TCI), which has a Cooperative Programme with the World Bank is assigned as the SE.

#### **5.2 MONITORING AND KNOWLEDGE SHARING**

A logical framework (Annex 2) is the basis for monitoring of project progress. A full time M&E officer will be recruited to carry out project M&E. The proposed M&E system is in line with the "Monitoring and Evaluation Plan" of GAFSP and will comply with the GAFSP requirements. The outline of the framework can be found in Annex 5, and will be further

detailed with more specific monitoring mechanisms, during the project inception phase. A needs assessment mission at project inception will gather data to serve as the baseline against which to measure project progress. Further, the CTA and ATA in conjunction with the M&E Officer will prepare six-monthly progress reports for submission to the GAFSP Steering Committee, as well as quarterly reports for submission to the Government. Further, upon completion of the project, an independent rapid non-experimental impact evaluation will occur that will serve as the final review of project impact. Throughout the lifetime of the project, the impact of capacity development activities will be measured through the use of learning assessment forms that can trace the level of relevance and use of skills developed.

### **5.3 COMMUNICATION AND VISIBILITY**

The ILBLSP will recruit a communication officer who will be responsible for publishing regular newsletters in the local language and English. S/he will report progress and achievements of the projects by collecting views and experiences of herders and stakeholders including private sector companies. The project will organize stakeholder meetings at the national and aimag levels to share the project information. The project will also promote donor coordination at national, aimag and soum levels where these newsletters will be distributed among donors and stakeholders to share project experiences.

The ILBLSP will also have a website where the contents of newsletters will be re-organized and up-dated. The communication officer will be responsible for the maintenance of the website. It is also planned to have private sector forums at aimag centres by inviting private sector companies, NGSs and local business consultants to discuss issues and investment and livestock-based business development opportunities as well as project achievements.

Knowledge sharing is an important aspect of the proposed project. Lessons learned from the field visits will be shared not only at the PIU, but also at MoFALI. These lessons will be uploaded on the project web-site. The lessons accumulated in the project will provide options for NLP policy, development and investments.

### **5.4 REPORTING SCHEDULE**

For the FAO-TA component, the CTA and ATA will be responsible to produce all necessary documents to the GAFSP Steering Committee in compliance with the GAFSP framework document. These reports will include financial reports and result reports.

The CTA and ATA will produce **semi-annual progress reports** to review progress in implementation, achievements as well as challenges to be addressed. The reports will contain financial information, physical monitoring indicators of project activities and assessment of challenges.

In addition, **annual activity reports** should be prepared at the end of each year to summarize annual achievements and define a programme of work for the following year.

A final **completion report** will be prepared within six months of the closure of the project so as to assess project performance, needs for further institutionalization of results and lessons learned from implementation.



**ANNEX 1.1: ACTIVITY BUDGET**  
CURRENCY EQUIVALENTS

(Exchange Rate Effective: December, 2011)

Currency Unit = MNT (Mongolian Tughrick)  
US\$ 1 = MNT 1,335  
MNT 1 = 0.00075

FISCAL YEAR  
January 1 – December 31

Component / Sub-component / Activity	Account	Unit	Quantity				Total	Unit cost (USD)	Costs (USD)				Total FAO (USD)
			1	2	3	4			2012	2013	2014	2015	
<b>OUTPUT 1 ENHANCED HUMAN AND ORGANIZATIONAL CAPACITY TO SUPPORT VALUE CHAINS AND PRODUCTIVE PARTNERSHIPS</b>													
<b>Activity 1.1. - Preparation of value chains development strategy</b>													
National consultant - Assistance to business plan preparation for the company and herder groups	6150	month	3	0	0	0	3	1,350	4,050	0	0	0	4,050
Investor forums	5920	meeting	10	5	0	0	15	1,400	14,000	7,000	0	0	21,000
<b>Activity 1.2. - Value chains and business planning training</b>													
TSS for RuralInvest Training (one P2 one P4)	6150	week	3	1			4	6,367	19,100	6,367	0	0	25,466
Travel - RuralInvest Training	5900	Return flight	2	1			3	3,000	6,000	3,000	0	0	9,000
<b>Sub-total</b>									<b>43,150</b>	<b>16,367</b>	<b>0</b>	<b>0</b>	<b>59,516</b>
<b>Contingency (5%)</b>									<b>2,157</b>	<b>818</b>	<b>0</b>	<b>0</b>	<b>2,976</b>
<b>Sub-total with contingency</b>									<b>45,307</b>	<b>17,185</b>	<b>0</b>	<b>0</b>	<b>62,492</b>

<b>OUTPUT 2 DEVELOPED HERDERS' CAPACITY TO ENGAGE IN DIVERSIFIED CROPPING SYSTEMS</b>													
<b>1. Soil and water assessments</b>													
Water, soils and horticulture specialists	5570	p.day	150				150	50	7,500	0	0	0	7,500.0
In-country transportation and accommodation	5900	mission	1				1	3,873	3,873	0	0	0	3,873.0
<b>Subtotal</b>									11,373	0	0	0	11,373.0
<b>2. Training</b>													
<b>Start-up MTOT: hort., forage, dairy</b>													
Instructors /c	5570	p.day	48	0	0	0	48	32	1,524	0	0	0	1,523.8
Transport, meals and material	5900	5 days training	3	0	0	0	3	4,048	12,143	0	0	0	12,142.9
<b>Subtotal</b>									13,667	0	0	0	13,666.7
<b>Start up study tour: for VABU/agropark staff</b>													
Instrutors /k	5570	p.day	24	0	0	0	24	32	762	0	0	0	761.9
Transportation, accommodation and materials	5900	Tour	3	0	0	0	3	3,968	11,905	0	0	0	11,904.8
<b>Subtotal</b>									12,667	0	0	0	12,666.7
<b>Start up: Upgrade agropark training facilities</b>													
Internet installation	5650	Agropark	15	0	0	0	15	397	5,952	0	0	0	5,952.4
Laptop computer for training	6100	Agropark	15	0	0	0	15	794	11,905	0	0	0	11,904.8
LCD projector for training	6100	Agropark	15	0	0	0	15	794	11,905	0	0	0	11,904.8
Training and reference materials	6000	Agropark	15	0	0	0	15	397	5,952	0	0	0	5,952.4
<b>Subtotal</b>									35,714	0	0	0	35,714.3
<b>First year extension annual programming</b>													
Translation of materials	6000	extension unit	15	0	0	0	15	794	11,905	0	0	0	11,904.8
<b>Subtotal</b>									11,905	0	0	0	11,904.8
<b>Total</b>									<b>85,325</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>85,325</b>
<b>Contingency (5%)</b>									<b>4,266</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4,266</b>
<b>Sub-total with contingency</b>									<b>89,592</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>89,592</b>

<b>OUTPUT 3 - ENHANCED ORGANIZATIONAL AND HUMAN CAPACITIES IN CONDUCTING ANIMAL HEALTH IMPROVEMENT AND SURVEILLANCE ACTIVITIES</b>													
<b>Activity 3.1. Compilation of animal health baseline data</b>													
Field assessment to - vet man power, survey to BIPS and buffer zone check points, assess cold chain and aimag lab needs)	5650	study	1				1	20,000	20,000	0	0	0	20,000
<b>Activity 3.2 Animal health and meat export strategy and supporting planning</b>													
TA-(Meat) Trade Specialist (int. consultant)	5570	p.week	8				8	3,850	30,800	0	0	0	30,800
Travel	5900	return flight	2				2	3,000	6,000	0	0	0	6,000
Trainings for meat export negotiators	5920	training		5			5	3,500	0	17,500	0	0	17,500
<b>Activity 3.3 Animal health improvement planning</b>													
TA-Training Needs Analysis (international consultant) + DSA	5570	p.week	6				6	3,850	23,100	0	0	0	23,100
Travel	5900	return flight	1					3,000	3,000	0	0	0	3,000
TA-Knowledge Skills and Attitudes survey (national consultant)	5570	P/D	60				60	50	3,000	0	0	0	3,000
TA-Veterinary Laboratory Specialist (international consultant+DSA)	5570	p.week	4				4	3,850	15,400	0	0	0	15,400
Travel	5900	return flight	2					3,000	6,000	0	0	0	6,000
TA-Veterinary Laboratory Specialist (nat. cons.)	5570	P/D	40	5	5	5	55	50	2,000	250	250	250	2,750
<b>Sub-total</b>									<b>109,300</b>	<b>17,750</b>	<b>250</b>	<b>250</b>	<b>127,550</b>
<b>Contingency (5%)</b>									<b>5,465</b>	<b>888</b>	<b>13</b>	<b>13</b>	<b>6,378</b>
<b>Sub-total with contingency</b>									<b>114,765</b>	<b>18,638</b>	<b>263</b>	<b>263</b>	<b>133,928</b>
<b>OUTPUT 4 - STRENGTHENED ORGANIZATIONAL AND HUMAN CAPACITIES IN PROVIDING A SYSTEMATIC BREEDING TO HERDERS</b>													
<b>Activity 4.1 - Development of guidelines and procedures for sheep and cashmere goat genetic improvement + Activity 4.2 Support to research for sheep and goat genetic improvement cashmere</b>													
International consultant (genetics)/PSA	5570	p.week	3	3	3	3	12	5,000	15,000	15,000	12,000	15,000	57,000
<b>Activity 4.3 - Improve AI technicians knowledge on dairy improvement through AI (Activity 4.4 supported through PIU)</b>													
Training AI technician	5920	lumpsum	1	1	-	-	2	3,000	3,000	3,000			6,000
<b>Total</b>									<b>18,000</b>	<b>18,000</b>	<b>12,000</b>	<b>15,000</b>	<b>63,000</b>
<b>Contingency (5%)</b>									<b>900</b>	<b>900</b>	<b>600</b>	<b>750</b>	<b>3,150</b>
<b>Sub-total with contingency</b>									<b>18,900</b>	<b>18,900</b>	<b>12,600</b>	<b>15,750</b>	<b>66,150</b>
<b>OUTPUT 5 - DEVELOPED ORGANIZATIONAL AND HUMAN CAPACITIES IN PROVIDING A SYSTEMATIC BREEDING TO HERDERS</b>													
International consultant	5570	p.day	3	3	-	-	6	3850	11,550	11,550	-	-	23,100
Travel	5900	return flight	1	1	-	-	2	3000	3,000	3,000	-	-	6,000
<b>Training and beneficiaries' selection budgeted under outputs 2 and 6</b>													
<b>Total</b>									<b>14,550</b>	<b>14,550</b>	<b>-</b>	<b>-</b>	<b>29,100</b>
<b>Contingency (5%)</b>									<b>728</b>	<b>728</b>	<b>0</b>	<b>0</b>	<b>1,455</b>

<b>Sub-total with contingency</b>								<b>15,278</b>	<b>15,278</b>	<b>0</b>	<b>0</b>	<b>30,555</b>	
<b>OUTPUT 6 - EFFECTIVE INSTITUTIONAL AND GOVERNANCE FRAMEWORK ENABLING PROJECT PLANNING, OPERATION AND SUSTAINED RESULTS</b>													
<b>Technical support</b>													
TSS/International consultant - Coordination of Preparation of Project Implementation Manual	5570	p.week	4					7,602	30,408	0	0	0	30,408
Travel - Preparation of Project Implementation Manual	5900	Return flight	1					3,000	3,000	0	0	0	3,000
TSS - Final evaluation* + RAP Support	6150	week	1	1	1	2		6,600	6,600	6,600	6,600	13,200	33,000
Travel + DSA - Final Evaluation* + RAP Support	5900	Return flight	1	1	1	1		3,000	3,000	3,000	3,000	3,000	12,000
TSS – Final report TCSR	6150	limpsum				1		6,500	0	0	0	6,500	65,000
<b>Sub-total</b>								<b>43,008</b>	<b>9,600</b>	<b>9,600</b>	<b>22,700</b>	<b>84,908</b>	
<b>Contingency (5%)</b>								<b>2,150</b>	<b>480</b>	<b>480</b>	<b>1,135</b>	<b>4,245</b>	
<b>Sub-total with contingency</b>								<b>45,158</b>	<b>10,080</b>	<b>10,080</b>	<b>23,835</b>	<b>89,153</b>	
<b>Equipment</b>													
4 X 4 Vehicle	6100	No	1				1	50,000	50,000	0	0	0	50,000
4x4 Pick-up	6100		1				1	32,000	32,000	0	0	0	32,000
Vehicle security accessories	6100	No	2				2	13,000	26,000	0	0	0	26,000
Office furniture	6100	LS	1					5,000	5,000	0	0	0	5,000
Computer set	6100	No	11				11	1,800	19,800	0	0	0	19,800
Laptops	6100	No	2					1,300	2,600	0	0	0	2,600
Copy machine	6100	No	1				1	2,000	2,000	0	0	0	2,000
<b>Sub-total</b>								<b>137,400</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>137,400</b>	
<b>Contingency (5%)</b>								<b>6,870</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,870</b>	
<b>Sub-total with contingency</b>								<b>144,270</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>144,270</b>	
<b>Recurrent Costs</b>													
International Chief Technical Advisor	5300	LS	1	1			2	200,000	200,000	200,000	0	0	400,000
National Assistant Technical Advisor	5570	month	9	12	12	12	45	1,950	17,550	23,400	23,400	23,400	87,750
Animal breeding specialist	5570	month	6				6	1,400	8,400	0	0	0	8,400
Animal health and nutrition specialist	5570	month	6				6	1,400	8,400	0	0	0	8,400
Vegetable production specialist	5570	month	6				6	1,400	8,400	0	0	0	8,400
Communication officer	5570	month	6				6	1,400	8,400	0	0	0	8,400
Accountant/procurement officer	6300	month	9	12	12	12	45	1,400	12,600	16,800	16,800	16,800	63,000
Secretary	6300	month	9				9	750	6,750	0	0	0	6,750

Driver	6300	month	6				6	500	3,000	0	0	0	3,000
Aimag coordinator	5570	month	30				30	750	22,500	0	0	0	22,500
Aimag administrator	5570	month	30				30	500	15,000	0	0	0	15,000
Aimag bookkeeper	6300	month	30				30	500	15,000	0	0	0	15,000
Aimag driver	6300	month	30				30	250	7,500	0	0	0	7,500
Soum coordinator	5570	month	30				30	500	15,000	0	0	0	15,000
Vehicle running costs	6300	vehicle.month	24	24	24	24	96	400	9,600	9,600	9,600	9,600	38,400
Vehicle maintenance costs	6300	vehicle.year	2	2	2	2	8	3,750	7,500	7,500	7,500	7,500	30,000
Office maintenance	6300	year	1	1	1	1	4	1,000	1,000	1,000	1,000	1,000	4,000
M&E officer	5570	month	9				9	1,400	12,600	0	0	0	12,600
<b>Sub-total</b>									<b>379,200</b>	<b>258,300</b>	<b>58,300</b>	<b>58,300</b>	<b>754,100</b>
<b>Contingency (5%)</b>									<b>18,960</b>	<b>12,915</b>	<b>2,915</b>	<b>2,915</b>	<b>37,705</b>
<b>Sub-total with contingency</b>									<b>398,160</b>	<b>271,215</b>	<b>61,215</b>	<b>61,215</b>	<b>791,805</b>
<b>Subtotal total component</b>									<b>559,608</b>	<b>267,900</b>	<b>67,900</b>	<b>81,000</b>	<b>976,408</b>
<b>Contingency</b>									<b>27,98</b>	<b>13,395</b>	<b>3,395</b>	<b>4,050</b>	<b>48,820</b>
<b>Subtotal Component 1 with contingency</b>									<b>587,588</b>	<b>281,295</b>	<b>71,295</b>	<b>85,050</b>	<b>1,025,228</b>
<b>TOTAL PROJECT</b>									<b>871,430</b>	<b>351,295</b>	<b>84,158</b>	<b>101,063</b>	<b>1,407,944</b>
<b>TOTAL WITH SUPPORT COSTS</b>									<b>928,421</b>	<b>374,270</b>	<b>89,661</b>	<b>107,672</b>	<b>1,500,024</b>

\* there is no provision for evaluation by OED as USD 16,200 have been allocated for independent evaluation.

**PROJECT BUDGET - FAO FORMAT**

<b>Description</b>	<b>Account</b>	<b>Year 1 US\$</b>	<b>Year 2 US\$</b>	<b>Year 3 US\$</b>	<b>Year 4 US\$</b>	<b>Total US\$</b>
<b>Budget</b>						
Staff Costs						
Salaries						
Professional	5300	210,000	210,000	0	0	420,000
Total						
Overtime	5660					
<b>Total Staff Costs</b>		<b>210,000</b>	<b>210,000</b>	<b>0</b>	<b>0</b>	<b>420,000</b>
Consultants	5570	238,230	52,710	37,433	40,583	368,955
Contracts	5650	27,250	0	0	0	27,250
Travel	5900	60,817	9,450	3,150	3,150	76,567
Training	5920	17,850	28,875	0	0	46,725
Equipment						
Expendable	6000	18,750	0	0	0	18,750
Non-expendable	6100	169,270	0	0	0	169,270
Total		<b>188,020</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>188,020</b>
<b>General Operating Expenses</b>	<b>6300</b>	<b>66,098</b>	<b>36,645</b>	<b>36,645</b>	<b>36,645</b>	<b>176,033</b>
Chargebacks	6500	0	0	0	0	0
Support Costs		56,991	22,975	5,504	6,609	92,080
Technical Support Services	6150	63,165	13,615	6,930	20,685	104,395
Technical Support Services	6119	0	0	0	0	0
<b>Total TSS</b>		<b>63,638</b>	<b>13,615</b>	<b>6,930</b>	<b>20,685</b>	<b>104,395</b>
<b>Total Budget</b>		<b>871,430</b>	<b>351,295</b>	<b>84,158</b>	<b>101,063</b>	<b>1,407,944</b>
<b>Total with Support costs</b>		<b>928,421</b>	<b>372,373</b>	<b>89,207</b>	<b>107,672</b>	<b>1,500,024</b>

## ANNEX 2: LOGICAL FRAMEWORK

Intervention Logic	Verifiable Indicators	Target	Means of Verification	Important Assumptions
<b>IMPACT</b>				
To increase rural household incomes and food security in selected Soums through improving productivity, market access and diversification in livestock-based farming systems.	<ol style="list-style-type: none"> <li>1. Household income.</li> <li>2. Increased outputs among the participating private sector companies.</li> </ol>	<ol style="list-style-type: none"> <li>1. TBD</li> <li>2. TBD</li> </ol>	<ol style="list-style-type: none"> <li>1. Baseline and impact survey</li> </ol>	<ol style="list-style-type: none"> <li>1. A similar magnitude of “Dzud 2010” does not happen during the project period.</li> <li>2. A similar magnitude of draught in 2009 does not happen during the project period.</li> <li>3. The new commodity exchange system does not affect negatively the supply of produces from herder groups.</li> <li>4. There is no other donor intervention in the same herder communities.</li> </ol>
<b>OUTCOME</b>				
Strengthened human and organizational capacities to deliver increased and more effective public and private investments	<ol style="list-style-type: none"> <li>1. Percentage of herders who engaged in project value-chain development continues supplying their livestock products to the private sector companies under a commercial agreement at the final year of the project.</li> <li>2.1 No of herders continue producing vegetables.</li> <li>2.2 No of Milk Producer Organization (MPO) continue producing dairy products at the final year</li> </ol>	<ol style="list-style-type: none"> <li>1. More than 80% of original members continue supplying their products to the value chain developed by the project.</li> <li>2.1 More than 80% of those were trained continue engaging in horticulture development.</li> <li>2.2 All of MPO supported by</li> </ol>	<ol style="list-style-type: none"> <li>1. Records kept by the participating private sector company and project M&amp;E data.</li> <li>2. Project MIS.</li> </ol>	<ol style="list-style-type: none"> <li>1.1 The selected private sector companies do not bankrupt.</li> <li>1.2 The selected private sector companies do not lose interests to work with the project and herders.</li> <li>1.3 The herders who agreed to work with the selected companies do not lose their interests to work with the project and the private sector companies.</li> <li>1.4 Intermediary merchants do not offer a better price for the products to be supplied to the value chains developed by the project.</li> </ol>

	<p>of the project.</p> <p>3. No of wasted surveillance samplings. ????</p> <p>4. Percentage of off-springs measured.</p> <p>5. Amount of annual fodder production.</p> <p>6. PIU continues to function and ensure delivery of the PDO after CTA's departure.</p>	<p>the project continue operating dairy production facility.</p> <p>3. More than 90% of surveillance samplings brought to the Aimag laboratories by private vets are valid for testing.</p> <p>4. More than 80% of off-springs born in nucleus measured.</p> <p>5. Increase at the fodder production site (target to be determined).</p> <p>6.</p>	<p>3. Records kept by the Aimag laboratory.</p> <p>4. Project MIS.</p> <p>5. Project MIS.</p>	<p>2. Procurement of seeds and essential tools to be provided to herders are completed on time.</p> <p>3. Quality of seeds delivered to the beneficiaries is maintained.</p> <p>1.1 Aimag laboratories maintain the base data and annual sampling data.</p> <p>1.2 Electricity at the target Soum centres maintains stable supply for the cold chains.</p> <p>4.1 Male flocks are maintained properly and the flock carers do not provide breeding for free.</p> <p>4.2 The flock are well fed during winter.</p> <p>5.1 The target Soum government provide suitable lands for fodder production.</p> <p>5.2 The fodder production plots are well kept and managed with proper fencing.</p>
<b>OUTPUTS</b>				
<p>1. Enhanced human and organizational capacity to support value chains and productive partnership.</p>	<p>No of business plans prepared.</p>	<p>At least 4 financially viable business plans are prepared.</p>	<p>Project MIS</p>	<p>1.1 There are private sector companies which show interests to work with the project and herders.</p> <p>1.2 The selected private sector companies do have enough investment funds or receive necessary loan amount from the project-partner SME agency.</p> <p>1.3 Procurement of equipments to be provided to herder communities are delivered as planned.</p>
<p>2.1 Developed herders'</p>	<p>No of herders identified and</p>	<p>7 groups are identified and all</p>	<p>Project MIS</p>	<p>2.1 Suitable lands are available for</p>

capacity to engage in diversified cropping systems.	suitable lands are provided by the soum governments	of 7 groups are provided with suitable lands for horticulture development		horticulture development.
2.2 Developed MPO's capacity to manage the 5 dairy production facilities.	2.2.1 No of MPOs identified 2.2.2 No of sites for dairy production facility	2.2.1 Five MPOs are identified 2.2.2 Five dairy production sites identified	Project MIS	2.2.1 There are minimum numbers of milk producers around the dairy production facilities 2.2.2 Target 5 soum government would have suitable buildings to be given to MPOs.
3. Enhanced organizational and human capacities in conducting animal health improvement and surveillance activities.	Strategy for meat export, and FMD and Brucellosis free zone prepared.	3.1 Road map for meat export is prepared. 3.2 Supporting plans for meat export are prepared.	Project MIS	None
4. Strengthened organizational and human capacities in providing a systematic breeding to herders.	No of people who received capacity development for the establishment of breeding systems	TBD	Project MIS	None
5. Developed organizational and human capacities in providing a systematic breeding to herders.	No of fodder production plots identified	At least one fodder production plot is identified at the selected soums.	Project MIS	Suitable lands for fodder production are available.
<b>ACTIVITIES</b>				
1.1 Preparation of value-chains development strategy and supporting modality.	1.1 Guidelines for PPs and value-chain supporting are prepared and revised.	One set of guidelines	Project MIS	None
1.2 Value chains and business planning training to production partners.	1.2 The number of people trained in business planning and management.	30 people	Project MIS	None
1.3 Feasibility studies and Business planning.	1.3.1 No of investor forums organized. 1.3.2 No of private sector	1.3.1 Fifteen investor forums 1.3.2 Twenty private sector companies.	1.3 Technical Feasibility study report.	None

	<p>companies selected.</p> <p>1.3.3 Technical feasibility study for the selected companies is conducted and approved by the PIU.</p> <p>1.3.4 Business plans and feasibility studies prepared and approved by the PIU.</p>	<p>1.3.3 Twenty</p> <p>1.3.4 Twenty</p>		
2.1 Preparation of guidelines for supporting modality.	<p>2.1.1 Guidelines for horticulture and dairy development supporting modality prepared.</p> <p>2.1.2 Training curriculum and materials are identified and prepared.</p> <p>2.1.3 Local NOGs or technicians are identified.</p>	<p>1.1.1 Two sets: one for horticulture development, one for dairy development.</p> <p>1.1.2 Two sets</p> <p>1.1.3 To cover five aimags</p>	Project MIS	None
2.2 Training of trainers for horticulture and dairy development.	<p>2.2.1 No of potential trainers are trained in horticulture development;</p> <p>2.2.2 No of potential trainers are trained in dairy processing.</p>	<p>2.2.1 Twenty</p> <p>2.2.2 Twenty</p>	Project MIS	None
2.3 Beneficiary and land identification for horticulture development	<p>2.3.1 No of appropriate sites for horticulture development plots identified.</p> <p>2.3.2 No of people and groups identified.</p>	<p>2.3.1 Seven sites</p> <p>2.3.2 Seven groups in total 350 people.</p>	Project MIS	None

<p>2.4 Beneficiary and land identification for dairy development</p>	<p>2.4.1 No of appropriate sites for dairy processing enterprises identified.</p> <p>2.4.2 No of MPOs and people engaged in small scale dairy enterprises.</p> <p>2.4.3 No of business plans and feasibility study prepared.</p>	<p>2.4.1 Five</p> <p>2.4.2 Five groups/400 people</p> <p>2.4.3 Five</p>	<p>Project MIS</p>	<p>None</p>
<p>3.1 Compilation of baseline data.</p>	<p>3.1 Four baseline studies: (a) livestock population; (b) veterinary manpower; (c) cold chain for vaccination and sample collection; and (d) five aimag laboratory capacities are prepared.</p>	<p>3.1.1 Baseline for livestock population at the project aimag;</p> <p>3.1.2 Baseline for vets manpower</p> <p>3.1.3 Baseline for cold chain for vaccination and sample collection</p> <p>3.1.4 Baseline for five aimag laboratory capacity.</p> <p>3.1.5 Procurement and implementation plans are prepared for five aimags</p>	<p>Project MIS</p>	<p>None</p>
<p>3.2 Animal health and meat export strategy and supporting planning.</p>	<p>3.2.1 a strategy for meat trade is prepared</p> <p>3.2.2 number of meat export negotiators are trained.</p>	<p>3.2.1 A strategy paper (road map)</p> <p>3.2.2 Five meat export negotiators.</p>	<p>Project MIS</p>	<p>None</p>

3.3 Animal health improvement planning.	3.3 Detailed animal health improvement investment plans are prepared, including: (a) soum animal handling and veterinary equipment; (b) BIP and buffer-zone check points; (c) cold chain equipment; and (d) aimag laboratory equipment.	3.3.1 Investment plans for soum animal handling and veterinary equipment 3.3.2 Investment plans for BIP and buffer-zone check points 3.3.3 Investment plans for cold chain equipment 3.3.4 Investment plans for aimag laboratory equipment	Project MIS	None
4.1 Development of guidelines and procedure for sheep and cashmere goat genetic improvement.	4.1 Guidelines for sheep and cashmere goat genetic improvement support is prepared and revised.	4.1 One set of guidelines.	Project MIS	None
4.2 Research for sheep and cashmere goat genetic improvement.	4.2.1 A database for sheep and cashmere goat genetic improvement is prepared. 4.2.2 The field data are analysed and a research paper on sheep and cashmere goat genetic improvement is drafted.	4.2.1 One database. 4.2.2 One research paper.	Project MIS	None
4.3 Dairy Improvement through AI.	4.3.1 Guidelines for AI service modality and procedures are prepared and revised; 4.3.2 The number of AI technicians received upgrading training.	4.3.1 One set of guidelines. 4.3.2 Ten AI technicians	Project MIS	None

4.4 Beef breed improvement.	4.4.1 Guidelines for beef breed improvement service modality and procedures are prepared and revised; 4.4.2 Number of private sector companies to be involved are identified; 4.4.3 Improved beef cattle procurement plans are prepared. 4.4.4 A simple database for improved beef performance recording is prepared.	4.4.1 One set of guidelines  4.4.2 Two private sector companies  4.4.3 One plan  4.4.4 A database	Project MIS	None
5.1 Preparation of fodder production supporting modality.	5.1 Guidelines for fodder production support modality are prepared and revised.	5.1 One set of guidelines	Project MIS	None
5.2 Fodder production training preparation. 5.3	5.3.1 The number of training material prepared. 5.3.2 Training plans are prepared. 5.3.3 The number of feasibility study is prepared.	5.2.1 One set of training material 5.2.2 One training plan 5.2.3 Five feasibility study	Project MIS	None
6.1 Preparation of Project Implementation Manual.	6.1 PIM is prepared and revised.	6.1 One PIM	Project MIS	None
6.2 Preparation of project implementation plans.	6.2 Annual implementation plans are prepared.	6.2 Four implementation plans (once per year)	Project MIS	None
6.3 On-the-job training.	6.3 Project director's annual performance evaluation for the CTA and ATA.	6.3 Satisfactory ratings	Project MIS	None
7.1 Preparation of monitoring plans.	7.1.1 A detailed monitoring plan is prepared. 7.1.2 The design of the M&E	7.1.1 One monitoring plan 7.1.2 One M&E design paper	Project MIS	None

	is prepared.			
7.2 Donor coordination.	7.2 The numbers of donor coordination meetings are conducted.	7.2 Twenty times in total for five aimags for four years (FAO-TA support).	Project MIS	None

### ANNEX 3: INDICATIVE WORK PLAN

No	Activity	1st year				2nd year				3rd year				4th year			
1.1	Preparation of value-chains development strategy and supporting modality.																
1.2	Value chains and business planning training to production partners.																
1.3	Feasibility studies and Business planning.																
2.1	Preparation of guidelines for supporting modality.																
2.2	Training of trainers for horticulture and dairy development																
3.1	Compilation of baseline data.																
3.2	Animal health and meat export strategy and supporting planning.																
3.3	Animal health improvement planning.																
4.1	Development of guidelines and procedure for sheep and cashmere goat genetic improvement.																
4.2	Research for sheep and cashmere goat genetic improvement.																
4.3	Dairy Improvement through AI.																
4.4	Beef breed improvement.																
5.1	Preparation of fodder production supporting modality.																
5.2	Fodder production training preparation																
6.1	Preparation of Project Implementation Manual.																
6.2	Preparation of project implementation plans.																
6.3	On-the-job training.																
7.1	Preparation of monitoring plans.																
7.2	Donor coordination technical support.																



## **ANNEX 4 THE IBLSP DESIGN**

### **Component 1 – Linking Farmers to Markets (USD 4.0 million)**

Productive Partnerships (PPs) will be established along selected value-chains. The project will assist the PPs with the identification of profitable strategies, coordination of activities and strategic investments in improvements in the value chain. Capacity building through management support, training and/or applied research (product or market development) will be provided to ensure success and sustainability. It is anticipated that 20 PPs will be supported.

The objective of this component is to create PPs along selected value-chains under the public-private partnership (PPP). This approach reduces the risks to agribusiness to invest in more remote agricultural production regions and increases the value added (incomes) for herders. The focus would be on linking herders, organized in groups and/or cooperatives with buyers, most likely processors (meat, dairy and fibre) at the national, aimag and soum levels. This orderly progression of activities allows partners in this value-chain to formulate profitable strategies and coordinate operations. As a result, this component will focus on strengthening contractual agreements in value chains between partners, ensuring market development. A unique combination of incentives, infrastructure, market conditions and sustainable supply, is needed to create and sustain well-functioning productive partnerships.

The use of matching grants will play a key role in facilitating the necessary formation of productive partnerships. In the past, this method has proved to be very effective in creating and enhancing such value chain partnerships in countries such as Vietnam and Columbia.

### **Sub-Component 1b: Diversification (USD 1.0 million)**

This sub-component will support horticulture for income diversification and alternative livelihoods for rural families. This will: (i) improve household and regional food security; (ii) increase household income; (iii) provide local employment; (iv) promote agricultural development and diversification; and (v) provide an exit strategy from herding. The component will contribute to increased household incomes, the proportion of income derived from agriculture and agricultural processing, the total agriculture capacity of the soum as well as improving the dietary intake of the local population.

The project will work with 7 groups (50 members per group) including 3 basic production groups, 2 diversification groups and 2 small-scale processing groups. This would reach 350 direct beneficiaries of which 50% would be women. Because of the migration of the poor to aimag centres, and the existence of a ready market in these same areas, it is probable that the vegetable production activities will occur in soums near the aimag center, provided that suitable land and water resources are available. Basic production support will go to groups of unemployed families and herders with very few animals. This pro-poor investment is provided on a grant basis. Matching grants will be made to established growers to build greenhouses, improve their irrigation systems and plant small fruit and berry plots. Small-scale processing at the

soum which allows local growers to add value and shelf-life to their products will also be provided by a matching grant.

The project will assist poor families to establish basic horticulture production. Investment will include fencing, wells, irrigation, storage, equipment and first year inputs as well as a small sorting and bagging facility. This investment is pro-poor and provided through a grant. The second type of investment will allow established growers to build greenhouses, improve their irrigation systems and plant small fruit and berry plots. Storage capacity will be expanded so they have more potential to market into winter and spring markets. These investments will be made on a cost-shared basis. The third type of investment is for small-scale processing at the soum. These plants will have capacity of 1 mt/day and will allow local growers to add value and shelf-life to their products.

The ILBLSP will support investments into small-scale dairy processing plants and training. The processing units will provide the opportunity for herders and intensive dairy producers to process their products locally to add value and to extend the marketing season for their products. These facilities will be owned by a local Milk Producers' Organization (MPO). The investment package will include all the equipment, tools, facilities, power, water and hygiene systems necessary to ensure safe food production. The accompanying training and technical assistance package will address food safety (on-farm and in the processing plant), processing techniques, marketing, financial management and cooperative management. The total value of each processing plant investment, including training and technical assistance, will be approximately \$100,000 USD.

## **Component 2 – Raising Livestock Productivity and Quality (USD 6.0 million)**

### ***Sub-component 2a: Animal health: all Soums (USD 1.5 million)***

Animal health activities will support the development of export markets through strategic planning for export development, bilateral negotiations and the strengthening of disease free zones, veterinary services and individual veterinary and para-veterinary capacity. Activities include: (i) defining a “roadmap” for meat export; (ii) supporting trade negotiations; (iii) raising the knowledge and skills of veterinarians and paraprofessionals; (iv) strengthening the FMD free zone; and (v) upgrading animal health services and disease surveillance. Project investments will be made into: (i) soum animal handling and veterinary equipment; (ii) border inspection post and buffer-zone check points; (iii) cold chain equipment; and (iv) aimag laboratory equipment. By improving access to export markets and by improving the health status and productivity of livestock, the component will contribute to improved household incomes and the proportion of total income earned from agriculture.

### ***Sub-component 2b: Animal Breeding and Genetic Improvement (USD 2.5 million)***

This sub-component will improve the quality of Mongolian livestock by improving genetic traits demanded by end-users. The genetic improvement programme will support the preservation of indigenous Mongolian sheep and cashmere goat breeds. The component will increase the quality of livestock products and animal productivity

thereby contributing to improved household incomes and the proportion of total income earned from agriculture.

Six nucleus herds will be established for cashmere goats and sheep which will supply improved male animals to 15 male flocks. Dairy breed improvement will be achieved through improving artificial insemination (AI) capacity. Beef breed improvement will be achieved by providing 275 improved beef bulls to herders.

***Sub-component 2c: Animal Nutrition (USD 2.0 million)***

Nutrition is the single greatest constraint in Mongolian livestock production. This sub-component will improve herder capacity to produce feeds and manage livestock feeding programmes. The improved nutritional levels will improve reproductive rates and weight gains and contribute directly to improving household incomes and the proportion of income earned from agricultural production.

Matching grants and grant financing will be provided for the establishment of forage production and small-scale processing facilities at the soum level. The programme will be supported by participatory training and farmer-focused research. Nucleus herd and dairy sites could be used for demonstration purposes so that herders and dairy producers in the industry at large can better understand the relationship between nutrition and productivity.

***Component 3: Management and Donor Coordination (USD 1.0 million)***

The project will support the coordination of project activities and the fiduciary functions of the Project's Implementation Unit (PIU) in the MOFALI. The PIU will be staffed and equipped to carry out these activities. The project will finance incremental staff, consultants, operating costs, some technical assistance and training, M&E activities and impact assessments, information dissemination and annual audits. Aimag and soum project and donor coordination functions will also be supported through Bank finance.

## ANNEX 5: TERMS OF REFERENCES

### Draft Terms of Reference – FAO Chief Technical Advisor

**General Responsibilities:** In close collaboration with the MoFALI and the World Bank, under the operational supervision of the FAO Representation (FAOR) in Mongolia, and the technical supervision of the Lead Technical Unit, the FAO Chief Technical Advisor will be responsible for delivery of the GAFSP FAO-TA component on behalf of the Government of Mongolia, including all aspects of day-to-day running of the office, human resources, financial, administrative and operational management.

#### Specific Tasks:

- familiarise him/herself with livestock value chains, including the technologies and marketing of modern and traditional livestock products, identifying the key linkages required to improve and sustain livelihoods through productivity and quality improvements;
- provide support to the Project Manager who will be assigned by MoFALI in implementing project activities detailed in the respective components in close collaboration with World Bank, the FAO lead technical unit (LTU) set up at the FAO RAP office, and other stakeholders;
- support the establishment and work at the Project Implementation Unit (PIU) in Ulaanbaatar and Provincial Coordination Unit (PCU) at the five project target aimags: (i) Arkhangai; (ii) Bayankhongor; (iii) Govi-Altai; (iv) Khovsgul; and (v) Zavkhan, which will jointly be established by the MoFALI-FAO-World Bank;
- support the establishment and work of the Project Steering Committee (PSC);
- prepare a detailed work plan for completing activities for both the FAO and World Bank GAFSP projects, including the Project Implementation Manual, which will be developed at the onset of the project inception with support from the LTU and FAO's other technical divisions;
- select and recruit the team of national and international project staff;
- plan and lead the GAFSP advocacy and awareness programme;
- provide advice and guidance to the national and international staff with respect to the implementation of the project activities;
- lead project activities related to value chain and market development;
- assist with the procurement of material and supplies;
- plan and organise meetings and workshops to operationalise aimag and national strategies for the sustainable and competitive development of the livestock sector, including leading the project inception workshops;
- assist with the analysis of the project achievements and preparation of recommendations for future development of the Mongolian livestock sector;
- prepare clear and precise progress and periodic report and draft the mid-term report;
- liaise and maintain partnerships with other agencies and partners on behalf of FAO and World Bank regarding livestock industry development in Mongolia;
- manage and guide the PIU and PCU;
- operate and be first signatory of the project imprest account;

- prepare a detailed work plan for completing activities for both the FAO and World Bank projects, including the Project Implementation Manual, which will be developed at the onset of the project inception with support from the LTU and FAO's other technical divisions;
- select and recruit the team of national and international project staff; and
- perform any other related duties to assure effective GAFSP programme implementation as may be assigned by the LTU.

**Duty Station:** Ulaanbaatar, Mongolia, with travel within the country.

**Qualifications:**

The selected candidate must have:

- a university degree in agriculture or business/public administration/social science or a related field;
- at least 10 years of practical experience in planning, managing and executing complex projects;
- expertise and competency in making effective use of resources and in producing results;
- managerial, supervisory, analytical and negotiating skills with demonstrated ability to lead a team of professionals and to exercise sound judgement;
- ability to work under pressure in an independent manner within an interdisciplinary team with different educational backgrounds and cultural orientations;
- capacity to support the professional development of the national professionals in the team;
- ability to communicate in a credible and effective manner and to represent FAO where appropriate;
- excellent knowledge of English.

The selected candidate will be able to commit for a minimum of two years.

## Draft Terms of Reference – FAO Assistant Technical Advisor

**General Responsibilities:** In close collaboration with the MoFALI and the World Bank, under the operational supervision of the FAO Representation (FAOR) in Mongolia and the FAO assigned Chief Technical Advisor (CTA), as well as the technical supervision of the Lead Technical Unit, the FAO Assistant Technical Advisor (ATA) will be responsible to support CTA to deliver the GAFSP FAO- TA component on behalf of the Government of Mongolia, including all aspects of day-to-day running of the office, human resources, financial, administrative and operational management. It is envisaged that the CTA post will be terminated after two years and the ATA will be responsible to deliver the GAFSP FAO- TA component after the CTA left the country.

### Specific Tasks:

- familiarise him/herself with livestock value chains, including the technologies and marketing of modern and traditional livestock products, identifying the key linkages required to improve and sustain livelihoods through productivity and quality improvements;
- provide support to the Project Manager who will be assigned by MoFALI in implementing project activities detailed in the respective components in close collaboration with World Bank, the FAO lead technical unit (LTU) set up at the FAO RAP, and other stakeholders;
- support the establishment and work at the Project Implementation Unit (PIU) in Ulaanbaatar and Provincial Coordination Unit (PCU) at the five project target aimags: (i) Arkhangai; (ii) Bayankhongor; (iii) Govi-Altai; (iv) Khovsgul; and (v) Zavkhan, which will jointly be established by the MoFALI-FAO-World Bank;
- support the CTA to establish and work for the Project Steering Committee (PSC);
- assist the CTA to prepare a detailed work plan for completing activities for both the FAO and World Bank GAFSP projects, including the Project Implementation Manual, which will be developed at the onset of the project inception with support from the LTU and FAO's other technical divisions;
- assist the CTA to select and recruit the team of national and international project staff;
- assist the CTA to plan and lead the GAFSP advocacy and awareness programme;
- support the CTA to provide advice and guidance to the national and international staff with respect to the implementation of the project activities;
- help the CTA to lead project activities related to value chain and market development;
- assist with the procurement of material and supplies;
- help the CTA to plan and organise meetings and workshops to operationalise aimag and national strategies for the sustainable and competitive development of the livestock sector, including leading the project inception workshops;
- assist the CTA with the analysis of the project achievements and preparation of recommendations for future development of the Mongolian livestock sector;

- help the CTA to prepare clear and precise progress and periodic report and draft the mid-term report;
- support the CTA to liaise and maintain partnerships with other agencies and partners on behalf of FAO and World Bank regarding livestock industry development in Mongolia;
- help the CTA to manage and guide the PIU and PCU;
- assist the CTA to prepare a detailed work plan for completing activities for both the FAO and World Bank projects, including the Project Implementation Manual, which will be developed at the onset of the project inception with support from the LTU and FAO's other technical divisions;
- help the CTA to select and recruit the team of national and international project staff;
- Prepare project terminal report; and
- perform any other related duties to assure effective GAFSP programme implementation as may be assigned by the LTU.

**Duty Station:** Ulaanbaatar, Mongolia, with travel within the country.

**Qualifications:**

The selected candidate must have:

- a university degree in agriculture or business/public administration/social science or a related field;
- at least 7 years of practical experience in planning, managing and executing complex projects;
- expertise and competency in making effective use of resources and in producing results;
- managerial, supervisory, analytical and negotiating skills with demonstrated ability to lead a team of professionals and to exercise sound judgement;
- ability to work under pressure in an independent manner within an interdisciplinary team with different educational backgrounds and cultural orientations;
- capacity to support the professional development of the national professionals in the team;
- ability to communicate in a credible and effective manner and to represent FAO where appropriate;
- excellent knowledge of English in both writing and speaking.

The selected candidate will be able to commit for a minimum of two years.

## **Draft Terms of Reference – Horticulture and Human Nutrient Specialist (National)**

**General Responsibilities:** In close collaboration with the MoFALI and the World Bank, under the operational supervision of the FAO Representation (FAOR) in Mongolia and the FAO assigned Chief Technical Advisor (CTA), as well as the technical supervision of the Lead Technical Unit, the FAO Horticulture and Human Nutrient Specialist will be responsible to deliver the specific tasks listed below.

### **Specific Tasks:**

The national consultant will visit the five project aimags centres and the three pilot soums in each aimag to gather data that will be used for detailed project planning. Specifically, he/she will conduct:

- Guideline development
  - Using the lessons learned in the on-going FAO project, “Enhancing Food and Nutrition Security for Vulnerable Segments of the Population of Mongolia through Capacity Building in Small-Scale Vegetable Production (DCI-FOOD/ 2010/235-397)”, prepare a set of guidelines to be used for the ILBLSP.
  
- Site validation
  - Identify possible lands for horticulture development.
  - Conduct rapid assessment of soil and water availability.
  
- Beneficiary identification
  - Working together with the project soum government, select beneficiaries according to the guidelines to be set for the selection.
  
- Negotiation for land allocation
  - Negotiate with the project soum government to allocate the suitable lands for horticulture development.
  
- Training material identification and preparation
  - Assess gaps and needs in the existing training materials to be used for the ILBLSP horticulture development, nutrient improvement, and small-scale dairy development.
  
- Identification of local NGOs and technicians
  - Survey available local NGOs and technicians who potentially out-sourced to conduct horticulture development and human nutrient improvement activities.

**Duty Station:** Ulaanbaatar, Mongolia, with travel within the country.

**Qualifications:**

- a university degree in agriculture;
- at least 7 years of practical experience in planning, managing and executing agriculture, food security and human nutrient improvement related projects;
- expertise and competency in making effective use of resources and in producing results;
- managerial, supervisory, analytical and negotiating skills with demonstrated ability to lead a team of professionals and to exercise sound judgement;
- ability to work under pressure in an independent manner within an interdisciplinary team with different educational backgrounds and cultural orientations;
- capacity to support the professional development of the national professionals in the team;
- ability to communicate in a credible and effective manner and to represent FAO where appropriate;
- excellent knowledge of English both in writing and speaking.

The selected candidate will be able to commit for a minimum of six months under the FAO contract and at least two years with the government contract under the World Bank supervision.

## Draft Terms of Reference – Animal Health Specialist (National)

**General Responsibilities:** In close collaboration with the MoFALI and the World Bank, under the operational supervision of the FAO Representation (FAOR) in Mongolia and the FAO assigned Chief Technical Advisor (CTA), as well as the technical supervision of the Lead Technical Unit, the FAO Animal Health Specialist (AHS) will be responsible to deliver the specific tasks listed below.

### Specific Tasks:

The national consultant will visit the five project aimags centres and the three pilot soums in each aimag to gather data that will be used for detailed project planning. Specifically, he/she will review and analyse:

- Livestock population
  - Record the latest livestock data census figures for all fifteen pilot soums and the bags in these soums and the aimag total population.
  - Collect 2009 data and calculate the percentage change in these figures after the dzud 2009-10 for each bag and soum.
  - Herd/flock composition and size distribution before and after the dzud
- Disease situation
  - Compile information on recorded outbreaks of notifiable diseases at bag, Soum and aimag level
  - Compile information on prevalence and impact of production limiting diseases / infestations (e.g. parasites) at soum level
- Veterinary manpower
  - Survey the veterinary manpower in each pilot soum.
  - Calculate the ratio of manpower to livestock units (*bod* or sheep units) in each bag and soum.
  - Assess and report on the number, qualifications and job titles of the animal health workers in each soum.
  - Comment on the need, if any, for paraprofessionals (e.g. community-based animal health workers) in specific soums/bags to extend the outreach of private veterinary professionals (in terms of the number of livestock per animal health worker and information gathered from herder interviews regarding availability of animal health service).
  - Interview state veterinarians at the soum Veterinary and Animal Breeding Units and report on their perceptions of coverage/gaps in disease surveillance in their soum, that is, their confidence that they receive a complete picture of disease outbreak events.
  - Report on the possible role of paraprofessional workers (e.g. community-based animal health workers) to extend the disease surveillance coverage, if required.
- Soum Master Plans

- Review the Master Plans for investment at soum-level (prepared under Mercy Corps project).
- Report with particular reference to plans, if any, for (i) sheep dips and (ii) animal handling corrals/races (i.e. fenced areas for gathering and treating/examining livestock).
- List locations where infrastructure is lacking and unbudgeted and specify number of dips and corrals required in the pilot soums and the sites they should be provided.
- Assess and comment on herders' willingness to pay for these inputs.
- Cold chain
  - Assess gaps and needs in the veterinary vaccine cold chain in the project target aimags and soums.
  - Report on needs for (i) aimag centre cold stores, (ii) soum centre cold rooms (in the three project soums) and (iii) requirements for refrigerated vehicle(s) for vaccine transport from Ulaanbaatar to the aimags.
- Border Inspection Points (BIPs) and buffer zone check points
  - Survey the four international border inspection posts (one per aimag) and the buffer zone check point (Arhanghai).
  - Report on the needs, if any, for upgrading to make them comply with OIE requirements. For example, double fenced (to exclude contact with wild or free grazing animals) compounds with water trough where seized animals could be held; sample taking and shipping equipment.

Upon reviewing and analysing the points above, prepare a detailed plan to be included in the Project Implementation Manual (PIM).

**Duty Station:** Ulaanbaatar, Mongolia, with travel within the country.

**Qualifications:**

- a university degree in veterinary and must have a national veterinary certificate;
- at least 7 years of practical experience in planning, managing and executing animal health related projects;
- expertise and competency in making effective use of resources and in producing results;
- managerial, supervisory, analytical and negotiating skills with demonstrated ability to lead a team of professionals and to exercise sound judgement;
- ability to work under pressure in an independent manner within an interdisciplinary team with different educational backgrounds and cultural orientations;
- capacity to support the professional development of the national professionals in the team;
- ability to communicate in a credible and effective manner and to represent FAO where appropriate;

- excellent knowledge of English both in writing and speaking.

The selected candidate will be able to commit for a minimum of six months under the FAO contract and at least two years with the government contract under the World Bank supervision.

## **Draft Terms of Reference – Animal Health Field Assessment and Training Needs Analysis Specialist (National)**

**General Responsibilities:** In close collaboration with the MoFALI and the World Bank, under the operational supervision of the FAO Representation (FAOR) in Mongolia and the FAO assigned Chief Technical Advisor (CTA), as well as the technical supervision of the Lead Technical Unit and the FAO Animal Health Specialist (AHS), the Animal Health Field Assessment and Training Needs Analysis Specialist will be responsible to deliver the specific tasks listed below.

### **Specific Tasks:**

The national consultant will visit the five project aimags centres and the three pilot soums in each aimag to gather data that will be used for detailed planning of training needs in the veterinary sector. This consultant will visit the field with the **animal health specialist**. Specifically, he/she will:

- Assess and report on all current training programmes in the sector, both government and NGO, in the five aimags.
- Report on training completed in the past five years in the five aimags.
- Interview veterinarians (government and private) and animal health paraprofessionals to assess their perceived training priorities.
- With reference to the table of proposed training activities in the project,
  - Specify which topics are needed and which, if any, are not needed.
  - Identify any other topics required.
  - List the priority specific contents in each trainings.
  - Recommend the number of trainees to attend each, and state cadre (veterinarian / paraprofessional, etc.).
- Draft a training plan (schedule of training timing through the duration of the project) and the locations where training will be carried out.

**Duty Station:** Ulaanbaatar, Mongolia, with travel within the country.

### **Qualifications:**

- a university degree and experience in veterinary, particularly participatory training at field level;
- at least 7 years of practical experience in planning, managing and executing animal health related projects;
- expertise and competency in making effective use of resources and in producing results;
- ability to work under pressure in an independent manner within an interdisciplinary team with different educational backgrounds and cultural orientations;
- ability to communicate in a credible and effective manner and to represent FAO where appropriate;
- excellent knowledge of English both in writing and speaking.

The selected candidate will be able to commit for a minimum of two months.

## **Draft Terms of Reference – Meat Trade Specialist (International Consultant)**

**General Responsibilities:** In close collaboration with the MoFALI and the World Bank, under the operational supervision of the FAO Representation (FAOR) in Mongolia and the FAO assigned Chief Technical Advisor (CTA), as well as the technical supervision of the Lead Technical Unit, the FAO Meat Trade Specialist will be responsible to deliver the specific tasks listed below.

### **Specific Tasks:**

The consultant will be responsible for the first two activities of the animal health subcomponent, that is, definition of ‘roadmap’ for unrestricted meat export and progressing export agreements for commodity-based trade.

- Draft theoretical pathways to achieve unrestricted meat exports (i) from Mongolia and (ii) from a specified zone of Mongolia. List the steps that would need to be taken to achieve these goals.
- Assess the current status of progress towards achieving unrestricted meat export.
- With the CVO, review progress with meeting the two OIE missions’ recommendations.
- Advise the national consultant on requirements for upgrading BIPs and Arhanghai buffer zone check post, making field visits as necessary.
- Identify gaps and obstacles that are not yet addressed by this or other projects.
- Assist the CVO to draft detailed, time-bound plans to overcome these obstacles so that he can seek support from GoM, this project or through requests to other donors to achieve the goal of unrestricted meat export.
- For bilateral, commodity-based trade agreements, train trade negotiators on the World Trade Organisation (WTO) Sanitary/Phytosanitary (SPS) agreement, rights and responsibilities.
- Support and/or facilitate inter-governmental technical meetings to progress agreements between Mongolia and importing countries.
- Provide technical assistance to national enterprises to develop the market chain.

**Duty Station:** Ulaanbaatar, Mongolia, with travel within the country.

### **Qualifications:**

- a university degree in economics, political science, trade and business administration or animal science and/or veterinary;
- at least 7 years of practical experience in meat export negotiation;
- familiar with OIE’s, FAO’s WTO’s meat trade policies and Sanitary/Phytosanitary (SPS) agreement;
- expertise and competency in making effective use of resources and in producing results;

- managerial, supervisory, analytical and negotiating skills with demonstrated ability to lead a team of professionals and to exercise sound judgement;
- ability to work under pressure in an independent manner within an interdisciplinary team with different educational backgrounds and cultural orientations;
- capacity to support the professional development of the national professionals in the team;
- ability to communicate in a credible and effective manner and to represent FAO where appropriate;
- excellent knowledge of English both in writing and speaking.

## **Draft Terms of Reference – Animal Breeding Specialist (National)**

**General Responsibilities:** In close collaboration with the MoFALI and the World Bank, under the operational supervision of the FAO Representation (FAOR) in Mongolia and the FAO assigned Chief Technical Advisor (CTA), as well as the technical supervision of the Lead Technical Unit, the FAO Animal Breeding Specialist (ABS) will be responsible to deliver the specific tasks listed below.

### **Specific Tasks:**

The national consultant will visit the five project aimags centres and the three pilot soums in each aimag to gather data that will be used for detailed project planning. Specifically, he/she will review and analyse:

- Specifically for Sire Flock activity
  - Brief Soum Breeding Officers and discuss expected support and define their responsibilities in the delivery of this component;
  - Assist in defining preconditions for participating Herders (HG) or Pasture Users Group (PUG) and in their selection;
  - Conduct HG and PUG information and sensitization meetings;
  - Participate in the site selection for the sire flock holding site;
  - Establish a loan template contract for the lending of sires to herders;
  - Prepare the accounting revolving fund; and
  - Prepare timely delivery of training activities.
  
- Specifically for the nucleus flocks
  - Brief Soum Breeding Officer, discuss expected support and define their responsibilities in the delivery of this component;
  - Jointly with the international consultant on genetics and MOFALI define breeding objectives and define traits to be recorded;
  - Jointly with the international consultant on genetics prepare the data base and define the selection index;
  - Assist in defining preconditions for participating Herders (HG) or Pasture Users Group (PUG) and participate in their final selection;
  - Prepare a short document outlining objectives and procedures for the running of the nucleus for the herders for their better understanding;
  - Conduct HG and PUG information and sensitization meetings;
  - Establish a small management committee if more than 15 different herders supply females to the nucleus;
  - Jointly with the herders select females for the nucleus make sure that animals are tagged and checked for infectious diseases;
  - Jointly with the herders and the Breeding Implementing Agency select the sires to be use;
  - Arrange and supervise the timely collection of the performance data and sample collection;
  - Arrange the timely entry of the data and the sample analysis;
  - Assist, based on the indexing, in the final selection of sires;
  - Organize and ensure timely delivery of training activities.
  
- Specifically to the artificial insemination (AI) component

- Participate in the identification of ‘milk pockets’ where the establishment of AI technicians are justified,
- Arrange for training activities for
  - AI technicians.
  - Dairy farmers.
- Specifically for the bull distribution component
  - Prepare draft agreement with commercial company;
  - Identify availability of sires and facilitate the transfer;
  - Participate in the selection of herders; and
  - Draft and establish on a trial basis light recording scheme.

**Duty Station:** Ulaanbaatar, Mongolia, with travel within the country.

**Qualifications:**

- a university degree in veterinary medicine or livestock production;
- at least 7 years of practical experience in planning, managing and executing animal breeding related projects;
- expertise and competency in making effective use of resources and in producing results;
- managerial, supervisory, analytical and negotiating skills with demonstrated ability to lead a team of professionals and to exercise sound judgement;
- ability to work under pressure in an independent manner within an interdisciplinary team with different educational backgrounds and cultural orientations;
- capacity to support the professional development of the national professionals in the team;
- ability to communicate in a credible and effective manner and to represent FAO where appropriate;
- excellent knowledge of English both in writing and speaking.

The selected candidate will be able to commit for a minimum of six months under the FAO contract and at least two years with the government contract under the World Bank supervision.

## **Draft Terms of Reference – Animal Genetics Specialist (International Consultant)**

**General Responsibilities:** In close collaboration with the MoFALI and the World Bank, under the operational supervision of the FAO Representation (FAOR) in Mongolia and the FAO assigned Chief Technical Advisor (CTA), as well as the technical supervision of the Lead Technical Unit, the FAO Animal Genetics Specialist (AGS) will be responsible to deliver the specific tasks listed below.

### **Specific Tasks:**

The national consultant will visit Mongolia and the project target areas to conduct specific tasks listed below:

#### **First mission (three weeks tentatively Sept 2012 ):**

- Get fully acquainted with the objectives of the project;
- Joint with the NC breeding, the experts from the Animal Husbandry Research Institute and MOFALI, define breeding goals and objectives. Define the economic important traits and propose a selection index;
- Adapt the ACCESS data base, used for the Dairy Herd Improvement Programme, for the use in the small ruminant genetic improvement programme;
- Define recording requirements
  - Prepare recording forms
  - Prepare a field recording manual ;
- Identify and strengthen the role of the Animal Husbandry Research Institute and the Gene Bank in the genetic improvement programme;
- Conduct training workshops for Soum breeding officers on principles of animal recording and genetic improvement;
- Train performance recorder and livestock assistants;
- Alpha test the data base.

#### **Second mission (three weeks tentatively April/Mai 2013):**

- Review the field activity and data recording of the first kidding/lambing - weighing season;
- Retrain if necessary recorders;
- Participate in the data entry of the first kidding/lambing - weighing season;
- Review the data base and make adjustments if necessary;
- Review and draw up a detailed schedule for the further recording requirements;

#### **Work at home (21 work day WAE)**

- provide, when required, remote assistance to
  - data bank management
  - genetic analysis
  - data bank adjustments

#### **Third mission (three weeks last year of the project ):**

- analyse the full data set;
- review the genetic improvement scheme for sheep and goats;

- finalize the genetic improvement breeding programme and advice on its expansion;
- based on the data obtained re-train staff in genetics and breeding;
- finalize action and expansion plan;

**General:**

- perform any other duty not specifically mentioned in these TORs but important to achieve the overall objectives of the project;
- participate in project meetings and training activities when on duty in Mongolia; and
- assist in other matters, as may be required, in relation to dairy development.

**Duty Station:** Ulaanbaatar, Mongolia, with travel within the country.

**Qualifications:**

- Ph.D. in animal genetics with proven record on breeding programmes development under developing countries conditions;
- expertise and competency in making effective use of resources and in producing results;
- managerial, supervisory, analytical and negotiating skills with demonstrated ability to lead a team of professionals and to exercise sound judgement;
- ability to work under pressure in an independent manner within an interdisciplinary team with different educational backgrounds and cultural orientations;
- capacity to support the professional development of the national professionals in the team;
- ability to communicate in a credible and effective manner and to represent FAO where appropriate;
- excellent knowledge of English both in writing and speaking.

## **Draft Terms of Reference – Fodder and Animal Nutrient Specialist (National)**

**General Responsibilities:** In close collaboration with the MoFALI and the World Bank, under the operational supervision of the FAO Representation (FAOR) in Mongolia and the FAO assigned Chief Technical Advisor (CTA), as well as the technical supervision of the Lead Technical Unit, the FAO Fodder and Animal Nutrient Specialist will be responsible to deliver the specific tasks listed below.

### **Specific Tasks:**

The national consultant will visit the five project aimags centres and the three pilot soums in each aimag to gather data that will be used for detailed project planning. Specifically, he/she will review and conduct:

- Guideline development
  - Using the lessons learned in Improving fodder production, conservation and processing for intensified milk and meat production in the central region of Mongolia (TCP/MON/3103), prepare a set of guidelines to be used for the ILBLSP.
- Site validation
  - Identify possible lands for fodder development.
  - Conduct rapid assessment of soil and water availability.
- Beneficiary identification
  - Working together with the project soum government, select beneficiaries according to the guidelines to be set for the selection.
- Negotiation for land allocation
  - Negotiate with the project soum government to allocate the suitable lands for fodder production.
- Training material identification and preparation
  - Assess gaps and needs in the existing training materials to be used for the ILBLSP fodder production.
- Identification of local NGOs and technicians
  - Survey available local NGOs and technicians who potentially out-sourced to conduct fodder production.

**Duty Station:** Ulaanbaatar, Mongolia, with travel within the country.

### **Qualifications:**

- a university degree in agriculture or livestock development;
- at least 7 years of practical experience in planning, managing and executing agriculture, and/or livestock related projects;

- expertise and competency in making effective use of resources and in producing results;
- managerial, supervisory, analytical and negotiating skills with demonstrated ability to lead a team of professionals and to exercise sound judgement;
- ability to work under pressure in an independent manner within an interdisciplinary team with different educational backgrounds and cultural orientations;
- capacity to support the professional development of the national professionals in the team;
- ability to communicate in a credible and effective manner and to represent FAO where appropriate;
- excellent knowledge of English both in writing and speaking.

The selected candidate will be able to commit for a minimum of six months under the FAO contract and at least two years with the government contract under the World Bank supervision.

## **Draft Terms of Reference –Animal Nutrient and Fodder Specialist (International Consultant)**

**General Responsibilities:** In close collaboration with the MoFALI and the World Bank, under the operational supervision of the FAO Representation (FAOR) in Mongolia and the FAO assigned Chief Technical Advisor (CTA), as well as the technical supervision of the Lead Technical Unit, the FAO Animal Nutrition and Fodders Specialist (ANFS) will be responsible to deliver the specific tasks listed below.

### **Specific Tasks:**

The International consultant will visit Mongolia and the project target areas to conduct specific tasks listed below:

#### **First mission (three weeks tentatively Sept 2012 ):**

- Get fully acquainted with the objectives of the project;
- Study and assess the current status of progress made in the already completed animal nutrition and fodder development projects funded by FAO, other international and national agencies in Mongolia;
- Jointly with the experts from the Animal Husbandry Research Institute and the Animal Nutrition and Fodder group from Mongolian Agriculture University, Ulaanbaatar and MoFALI; and based on the existing international knowledge on fodder production in cold climates of North America, Europe and high altitudes of northwest China identify fodder plants that could be planted in the target areas in Mongolia;
- Identify sources for procurement of seeds for the fodder plants that are extensively used in other similar cold climates in the world and having potential for plantation in the target areas in Mongolia;
- Prepare guidelines for plantation, harvesting, storage and feeding of fodder plants;
- Identify locally available feed resources and prepare their inventories. Also assess the role of multi-nutrient and mineral blocks for production animals;
- Based on the feed and fodder resources, prepare guidelines for preparing balanced feeds for various species of animals and for different physiological stages. Also prepare feeding guidelines for survival of the animals during the winter period;
- Prepare a feed recording form for use by farmers;
- Identify and strengthen the role of the Animal Husbandry Research Institute and the Animal Nutrition and Fodder group from the Agriculture University in the balanced feeding of animals in the target areas;
- Conduct a two-day training workshops for training of trainers from Animal Husbandry Research Institute and the Animal Nutrition and Fodder group from the Agriculture University on preparation and feeding of balanced diets based on physiological conditions of animals;
- Advise National Consultant (Animal Nutrition and Fodder) on sound implementation of the strategies and guidelines developed for production, storage and feeding of fodder plants; and for feeding of a balanced diet using fodder plants and other locally available feed resources; and

- Draw a ‘roadmap’ for execution of fodder development and animal feed preparation activities of the project.

**Second mission (two weeks tentatively September/October 2013):**

- Review the field activities related to fodder development and feed formulation and feeding and if needed fine tune and modify them;
- Based on the progress made in the area of fodder production again prepare the feed inventory, assess the feed needs and prepare a feeding strategy for the forthcoming winter period;
- Based on the progress made, advise and guide the National Consultant and other project workers on fodder production, storage and feeding of balanced diets;
- If needed, retrain the trainers; and
- Draw up a detailed schedule for the further execution of animal nutrition related activities at the targeted areas.

**Work at home (7 work days)**

- provide, when required, remote assistance to
  - National Consultant and other workers in the area of fodder production and animal feeding.

**General:**

- perform any other duty not specifically mentioned in these TORs but important to achieve the overall objectives of the project;
- participate in project meetings and training activities when on duty in Mongolia; and
- assist in other matters, as may be required, in relation to livestock development.

**Duty Station:** Ulaanbaatar, Mongolia, with travel within the country.

**Qualifications:**

- Ph.D. in animal nutrition with proven record on fodder production and their use in cold climates;
- Sound knowledge of animal nutritional concepts and preparation of balanced rations;
- Managerial, supervisory, analytical and negotiating skills with demonstrated ability to lead a team of professionals and to exercise sound judgement;
- Ability to work under pressure in an independent manner within an interdisciplinary team with different educational backgrounds and cultural orientations;
- Capacity to support the professional development of the national professionals in the team;
- Ability to communicate in a credible and effective manner and to represent FAO where appropriate; and
- Excellent knowledge of English both in writing and speaking.

## **Draft Terms of Reference –Administrator (Accounting, Operations and Procurement)**

**General Responsibilities:** Under the direct supervision of the FAO recruited CTA and ATA, the Administrator (Accounting, Operations and Procurement) will be responsible for controlling, monitoring and reporting on all financial, operational and procurement aspects of the project.

### **Specific Tasks:**

- assist in project administration and maintain up-to-date and accurate financial records of all disbursements and receipts related to the project, and use these records as the basis for preparing quarterly and annual financial reports for submission to the GAFSP Steering Committee and the Government of Mongolia;
- in collaboration with the FAO CTA, ATA and the Programme/M&E Officer, and on the basis of approved annual work plans and projected future project activities, prepare budgets for forthcoming quarters and the next financial year;
- monitor project budget in terms of expenditures and commitments in accordance with the project budget and work plan;
- process project payments in accordance with the authorized budget limits;
- maintain a system for petty cash and/or project advances and keep electronic and paper filing of relevant administrative and financial information;
- coordinate the procurement of services from local and international suppliers adhering to FAO's and the World Bank's procurement rules and procedures, including the preparation of tender documents for consultancy services to be published by FAO and the World Bank (specifications and terms of reference will be prepared by the Project Manager, the FAO CTA and ATA) and participation in procurement review committees, bid evaluation meetings, and prepare minutes for approval.
- perform other duties as required by the project management.

**Duty Station:** Ulaanbaatar, Mongolia

### **Qualifications:**

The selected candidate must have:

- a university degree in business administration, finance, accounting or a related field;
- at least four years of progressively more responsible experience in maintaining project financial records and budgets and procurement;
- familiarity with the procurement rules and procedures of FAO;
- strong computing skills (word processing, spreadsheets and databases);
- ability to work quickly and accurately and to maintain good working relationships with people from different national and cultural backgrounds;
- working knowledge of English.

The selected candidate will be able to commit for a minimum of three and a half years.

## **Draft Terms of Reference – Programme and Monitoring and Evaluation Officer**

**General Responsibilities:** Under the direct supervision of the FAO Team Leader, the Programme and Monitoring and Evaluation Officer will be responsible for the smooth implementation of project activities.

### **Specific Tasks:**

- be responsible for issues related to project management and implementation including annual work plans (in consultation with concerned stakeholders), budget revisions, regular reporting as described in the project document, problems arising during implementation
- coordinate project activities, including training sessions, study tours, field visits, mobilization of technical expertise from FAO headquarters;
- assist the FAO Team Leader in preparing the project inception report, within the first six weeks of the project, containing a detailed work plan, the beneficiaries identified and specific tasks to be carried out by project staff;
- coordinate the M&E system design finalization and implementation, including monitoring of progress against baseline project and GAFSP core indicators established in the project log frame; preparation of six-monthly progress reports for the GAFSP Steering Committee, as well as monthly reports for the Government; aid in facilitation of the independent rapid non-experimental impact evaluation at project completion;
- organize six-monthly field supervision visits for the Supervising Unit and support missions from Lead Technical Unit as necessary;
- maintain regular communication with representatives from the World Bank GAFSP investment component as well as Government of Bangladesh counterparts, in order to ensure effective and open sharing and transfer of information;
- undertake other tasks as needed for the smooth and timely implementation of the project.

**Duty Station:** Ulaanbaatar, Mongolia

### **Qualifications:**

- a university degree in public administration, agriculture, rural development or a related field;
- at least two years of progressively more responsible experience in project management such as budget control, work planning and reporting;
- ability to work under pressure in an independent manner within an interdisciplinary team of personnel with different educational backgrounds and cultural orientations;
- working knowledge of English.

The selected candidate will be able to commit for a minimum of three and a half years.