

Document of
The World Bank
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Report No: 73827-MN

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT

IN THE AMOUNT OF
US\$ 11 MILLION

TO

MONGOLIA

FOR A

LIVESTOCK AND AGRICULTURAL MARKETING PROJECT (LAMP)

May 17, 2013

China and Mongolia Sustainable Development Unit
Sustainable Development Department
East Asia and Pacific Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective November 15, 2012)

Currency Unit = Mongolian National Tugrug (MNT)
MNT1392 = US\$1
US\$1.525 = SDR 1

FISCAL YEAR
July 1 – June 30

ABBREVIATIONS AND ACRONYMS

| | |
|-------|--|
| | |
| ACC | Aimag Coordinating Committee |
| ACO | Aimag Coordinating Office |
| ADB | Asian Development Bank |
| ADNET | Aimag Department for Nature, Environment and Tourism |
| ADRA | Adventists Development and Relief Agency |
| AHRI | Animal Husbandry Research Institute |
| AI | Artificial Insemination |
| APC | Aimag Project Coordinator |
| APO | Aimag Project Office |
| ARCS | Audit Report Compliance System |
| ASIA | Aimag Special Inspection Agency |
| AVSF | Agronomes Veterinaire Sans Frontier |
| BDS | Business Development Service |
| BIP | Border Inspection Post |
| CAS | Country Assistance Strategy |
| CPP | Community Participation Procurement |
| CPA | Central Procurement Agency |
| CPS | Country Partnership Strategy |
| CVO | Chief Veterinary Officer |
| DFZ | Disease Free Zone |
| EA | Environmental Assessment |
| EID | Environmental and Infectious Diseases |
| EMP | Environmental Management Plan |
| EU | European Union |
| DHIP | Dairy Herd Improvement Program |
| DIME | Development Impact Evaluation Initiative |
| ERR | Economic Rate of Return |
| EID | E Infectious Diseases |
| FAO | Food and Agriculture Organization |
| FFS | Farmer Field School |

| | |
|-------|---|
| FMD | Foot and Mouth Disease |
| FSL | Fiscal Stability Law |
| FY | Fiscal Year |
| GA | Grant Agreement |
| GAAP | Governance and Accountability Action Plan |
| GAFSP | Global Agriculture and Food Security Program |
| GDP | Gross Domestic Product |
| GIZ | German Agency for International Cooperation |
| GOM | Government of Mongolia |
| GRM | Grievance Redress Mechanism |
| IBLIP | Index-based Livestock Insurance Project |
| IBRD | International Bank for Reconstruction and Development |
| ICB | International Competitive Bidding |
| ICR | Implementation Completion Report |
| IDA | International Development Association |
| IEI | Independent evaluation of implementation |
| IEIE | Independent external impact evaluation |
| IFAD | International Fund for Agricultural Development |
| IFR | Interim Financial Reports |
| IPM | Independent Process Monitoring |
| IS | Implementation Strategy |
| ISP | Implementation Support Plan |
| LAMP | Livestock and Agricultural Marketing Project |
| NAMAC | National Association of Agricultural Cooperatives |
| M&E | Monitoring and Evaluation |
| MCA | Millennium Challenge Corporation |
| MCC | Millennium Challenge Account |
| MDG | Millennium Development Goals |
| MGM | Matching Grants Manual |
| MoIA | Ministry of Industry and Agriculture |
| MIS | Management Information System |
| MNT | Mongolian Tugrug |
| MOF | Ministry of Finance |
| MOU | Memorandum of Understanding |
| MPO | Milk Producers Organization |
| MSUA | Mongolian State University of Agriculture |
| MTR | Mid-Term Review |
| NAEC | National Agriculture Extension Centre |
| NDS | National Development Strategy |
| NFSP | National Food Security Program |
| NGO | Non-Government Organization |
| NLP | National Livestock Program |
| NPV | Net Present Value |
| O&M | Operation and Maintenance |

| | |
|--------|--|
| OIE | World Organization for Animal Health |
| PAD | Project Appraisal Document |
| PCN | Project Concept Note |
| PD | Project Director |
| PDO | Project Development Objective |
| PIM | Project Implementation Manual |
| PIU | Project Implementation Unit |
| PMO | Project Management Office |
| PMR | Project Management Report |
| PP | Productive Partnership |
| PPLM | Public Procurement Law of Mongolia |
| PSARTI | Plant Science Agricultural Research and Technology Institute |
| PSC | Project Steering Committee |
| PUG | Pasture Users Group |
| PY | Project Year |
| RFP | Request for Proposal |
| RIAH | Research Institute of Animal Husbandry |
| SBD | Standard Bidding Documents |
| SC | Steering Committee |
| SDC | Swiss Development Cooperation |
| SIL | Specific Investment Loan |
| SLP | Sustainable Livelihoods Project |
| SLVDTC | State Laboratory for Veterinary Drug Testing and Control |
| SME | Small and medium Enterprise |
| SOE | State-owned enterprise |
| SPS | Sanitary and Phyto-Sanitary |
| SWOT | Strengths Weaknesses Opportunities and Threats |
| TA | Technical Assistance |
| TBD | To Be Determined |
| TNA | Training Needs Assessment |
| TOR | Terms of Reference |
| UNDAF | United Nations Development Assistance Framework |
| USAID | United States Agency for International Development |
| VABA | Veterinary and Animal Breeding Agency |
| VABD | Veterinary and Animal Breeding Division |
| VABU | Veterinary and Animal Breeding Unit |
| WB | World Bank |
| WTO | World Trade Organization |

| | |
|--------------------------|-------------------------------|
| Regional Vice President: | Axel van Trotsenburg, EAPVP |
| Country Director: | Klaus Rohland, EACCF |
| Sector Director: | John Roome, EASSD |
| Sector Manager: | Mark Lundell, EASCS |
| Task Team Leader: | Charles Annor-Frempong, EASCS |

MONGOLIA
Livestock and Agricultural Marketing Project

Table of Contents

| | | |
|-------------|---|-----------|
| I. | STRATEGIC CONTEXT | 12 |
| | A. Country Context..... | 12 |
| | B. Sectoral and Institutional Context..... | 12 |
| II. | PROJECT DEVELOPMENT OBJECTIVES | 16 |
| III. | PROJECT DESCRIPTION | 17 |
| | A. Project Components | 17 |
| | B. Project Financing | 21 |
| | (i) Lending Instrument..... | 21 |
| | (ii) Tables on Project Cost and Financing | 22 |
| | C. Lessons Learned and Reflected in the Project Design..... | 22 |
| IV. | IMPLEMENTATION | 23 |
| | A. Institutional and Implementation Arrangements | 23 |
| | B. Results Monitoring and Evaluation | 23 |
| | C. Sustainability..... | 24 |
| V. | KEY RISKS AND MITIGATION MEASURES | 25 |
| VI. | APPRAISAL SUMMARY | 26 |
| | A. Economic and Financial Analyses | 26 |
| | B. Technical..... | 27 |
| | C. Financial Management..... | 27 |
| | D. Procurement | 27 |
| | E. Social (including Safeguards)..... | 28 |
| | F. Environment (including Safeguards) | 29 |
| | Annex 1: Results Framework and Monitoring | 31 |
| | Annex 2: Detailed Project Description..... | 35 |
| | Annex 3: Implementation Arrangements | 44 |
| | Annex 4: Operational Risk Assessment Framework (ORAF)..... | 61 |

Annex 5: Implementation Support Plan66

Annex 6: Economic and Financial Analysis69

PAD DATA SHEET*Mongolia**Mongolia Livestock and Agricultural Marketing Project (P125964)***PROJECT APPRAISAL DOCUMENT***EAST ASIA AND PACIFIC**EASCS*

Report No.: 73827-MN

| Basic Information | | | |
|--|---|--|---|
| Project ID P125964 | Lending Instrument Investment Project Financing | EA Category B - Partial Assessment | Team Leader Charles Annor- Frempong |
| Project Implementation Start Date September-2013 | | Project Implementation End Date 31-Jul-2016 | |
| Expected Effectiveness Date 1-Aug-2013 | | Expected Closing Date 31-Jan-2017 | |
| Joint IFC No | | | |
| Sector Manager Mark R. Lundell | Sector Director John A. Roome | Country Director Klaus Rohland | Regional Vice President Axel van Trotsenburg |
| Borrower: Ministry of Finance | | | |
| Responsible Agency: Ministry of Food, Agriculture and Light Industry | | | |
| Contact: Telephone No.: | L. Choi-Ish 97611262563 | Title: Email: | Director General |
| Project Financing Data(US\$M) | | | |
| <input type="checkbox"/> Loan | <input checked="" type="checkbox"/> Grant | <input checked="" type="checkbox"/> Other | |
| <input type="checkbox"/> Credit | <input type="checkbox"/> Guarantee | | |
| For Loans/Credits/Others | | | |
| Total Project Cost (US\$M): 11.49 | | | |
| Total Bank Financing (US\$M): 11.00 | | | |
| Financing Source | | Amount(US\$M) | |
| Borrower | | 0.49 | |

| | |
|--|-------|
| Global Agriculture and Food Security Program | 11.00 |
| Total | 11.49 |

Expected Disbursements (in USD Million)

| Fiscal Year | 2014 | 2015 | 2016 | 2017 | | | | |
|-------------|------|------|-------|-------|--|--|--|--|
| Annual | 3.00 | 4.00 | 3.00 | 1.00 | | | | |
| Cumulative | 3.00 | 7.00 | 10.00 | 11.00 | | | | |

Project Development Objective(s)

The Project Development Objective is to improve rural livelihoods and food security in selected aimags and soums through investments in enhancing productivity, market access and diversification in livestock-based production systems.

Components

| Component Name | Cost (USD Millions) |
|---|---------------------|
| Component 1: Linking Herders with Markets | 6.26 |
| Component 2: Raising Livestock Productivity and Quality | 4.23 |
| Component 3: Project Management | 1.00 |

Compliance

Policy

| | | |
|---|-----------|----------|
| Does the project depart from the CAS in content or in other significant respects? | Yes [] | No [X] |
| Does the project require any waivers of Bank policies? | Yes [] | No [X] |
| Have these been approved by Bank management? | Yes [] | No [X] |
| Is approval for any policy waiver sought from the Board? | Yes [] | No [X] |
| Does the project meet the Regional criteria for readiness for implementation? | Yes [X] | No [] |

Safeguard Policies Triggered by the Project

| | Yes | No |
|--|-----|----|
| Environmental Assessment OP/BP 4.01 | X | |
| Natural Habitats OP/BP 4.04 | | X |
| Forests OP/BP 4.36 | | X |
| Pest Management OP 4.09 | X | |
| Physical Cultural Resources OP/BP 4.11 | | X |
| Indigenous Peoples OP/BP 4.10 | | X |
| Involuntary Resettlement OP/BP 4.12 | | X |
| Safety of Dams OP/BP 4.37 | | X |
| Projects on International Waterways OP/BP 7.50 | | X |

| | | | |
|---|-------------------------------------|-----------------------------|------------------|
| Projects in Disputed Areas OP/BP 7.60 | | | X |
| Legal Covenants | | | |
| Name | Recurrent | Due Date | Frequency |
| Project Manuals | X | | Yearly |
| Description of Covenant | | | |
| The Recipient shall ensure that the Project is implemented in accordance with the Project Implementation Manual, and the Grants Manual and shall not take or concur in any action which would have the effect of assigning, amending, abrogating or waiving such documents or any provision thereof, without the prior written consent of the World Bank. | | | |
| Name | Recurrent | Due Date | Frequency |
| M&E | X | | Yearly |
| Description of Covenant | | | |
| The Recipient shall prepare, under terms of reference satisfactory to the World Bank, and furnish to the World Bank, on or about June 15, 2015, a report integrating the results of the monitoring and evaluation activities. | | | |
| Name | Recurrent | Due Date | Frequency |
| Financial Statement | X | | Yearly |
| Description of Covenant | | | |
| The Recipient shall have its Financial Statements for the Project audited. Each audit of the Financial Statements shall cover the period of one Calendar year of the Recipient. The audited Financial Statements for each such period shall be furnished to the World Bank not later than six months after the end of such period. | | | |
| Conditions | | | |
| Name | | | Type |
| | | | |
| Description of Condition | | | |
| | | | |
| Team Composition | | | |
| Bank Staff | | | |
| Name | Title | Specialization | Unit |
| Charles Annor-Frempong | Senior Rural Development Specialist | Team Lead | EASCS |
| Minneh Mary Kane | Lead Counsel | Lead Counsel | LEGES |
| Sylvester Kofi Awanyo | Lead Procurement Specialist | Lead Procurement Specialist | EASR2 |
| Andrew D. Goodland | Senior Agriculture Economist | Team Lead | AFTA3 |
| Gerelgua Tserendagva | Procurement Specialist | Procurement Specialist | EASR2 |

| | | | |
|--------------------------|---------------------------------|---------------------------------|-------|
| Yiren Feng | Senior Environmental Specialist | Senior Environmental Specialist | EASCS |
| Erdene Ochir Badarch | Operations Officer | Operations Officer | EASCS |
| Jose Ramon R. Pascual IV | Counsel | Counsel | LEGCF |
| Badamchimeg Dondog | Financial Management Analyst | Financial Management Analyst | EASFM |
| Nomuuntugs Tuvaan | Program Assistant | Program Assistant | EACMF |
| Dulguun Byambatsoo | E T Consultant | E T Consultant | EASFM |
| Gantuya Paniga | Program Assistant | Program Assistant | EACMF |
| Zolzaya Tuguldur | ET Temporary | ET Temporary | EACMF |

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| Name | Title | Office Phone | City |
|-------------------|--------------------------|---------------|-------------|
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| Luis Dias Pereira | Economist | | Rome |
| Brian Dugdill | Livestock Specialist | | Leeds |
| Saha Meyanathan | Value Chain Specialist | | Ulaanbaatar |
| Kofi Amponsah | Senior Economist | | Washington |
| David Hadrill | Animal Health Specialist | +441273683154 | London |

Locations

| Country | First Administrative Division | Location | Planned | Actual | Comments |
|----------|-------------------------------|-------------------|---------|--------|--|
| Mongolia | Govi-Altay Aymag | Govi-Altay Aymag | | X | Delger, Khaliun, Chandmani |
| Mongolia | Dzavhan Aymag | Dzavhan Aymag | | X | Zavkhanmandal, Erdenekhairkhan, Tsagaankhairkhan |
| Mongolia | Bayanhongor Aymag | Bayanhongor Aymag | | X | Bogd, Baatsagaan, Galuut |
| Mongolia | Hovsgol Aymag | Hovsgol Aymag | | X | Shine-Ider, Tunel, Tosontsengel |
| Mongolia | Arhangay Aymag | Arhangay Aymag | | X | Chuluut, Khangai, Bulgan |

Institutional Data

Sector Board

Agriculture and Rural Development

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

| Major Sector | Sector | % | Adaptation Co-benefits % | Mitigation Co-benefits % |
|------------------------------------|-------------------------------------|-----|--------------------------|--------------------------|
| Industry and trade | Agro-industry, marketing, and trade | 50 | | |
| Agriculture, fishing, and forestry | Animal production | 25 | | |
| Agriculture, fishing, and forestry | Agricultural extension and research | 25 | | |
| Total | | 100 | | |

I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)

| Major theme | Theme | % |
|--|--|-----|
| Rural development | Rural markets | 50 |
| Rural development | Rural policies and institutions | 20 |
| Environment and natural resources management | Other environment and natural resources management | 10 |
| Financial and private sector development | Micro, Small and Medium Enterprise support | 10 |
| Social dev/gender/inclusion | Gender | 10 |
| Total | | 100 |

I. STRATEGIC CONTEXT

A. COUNTRY CONTEXT

1. Mongolia is a vast country with an area of 1,569,000 km². The population is just over 2.7 million, making it the third most sparsely populated country in the world. The country has a continental climate characterized by long and extremely cold winters. Temperatures range from as low as minus 45°C on the steppe in winter to plus 45°C in the Gobi desert in summer.

2. The country began simultaneous economic and political transformations in 1990, 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 following decade resulted in the collapse of agriculture and the food industry, causing considerable disruption to both urban and rural livelihoods. Mongolia has experienced rural migration into urban centers over the past twenty years. As a result, urban poverty and food insecurity increased. The proportion of people living under the poverty line in 1995 was 36.3 percent and then dropped to 29.8 percent in 2011, with rural poverty estimated at 33 percent.

3. The global economic crisis of 2008 struck the Mongolian economy, seriously affecting key mineral exports as well as the agriculture and livestock sector. All economic indexes collapsed, and its fiscal accounts, the balance of payments, and tax revenue all suffered deterioration. This performance inevitably undermined government investment in agriculture. After negative performance (minus 1.3 percent) in 2009, the economy has strongly rebounded and Gross Domestic Product (GDP) grew by more than 6 percent in 2010. The GDP growth for 2011 has been estimated at 17 percent and is projected at 11 percent in 2012. The agricultural sector, which accounted for 15 percent of GDP in 2010 and provided a livelihood for about 40 percent of its population, experienced double-digit contraction in 2010. 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. There are signs that the sector is emerging from the dzud that devastated nearly a fifth of the country's livestock, with 18 percent growth during the first two quarters of 2012. Still, inequality, poverty and food insecurity persist, especially in rural areas where there are large numbers of households that exist around the poverty level.

B. SECTORAL AND INSTITUTIONAL CONTEXT

4. Livestock-based agriculture has been a backbone of society in the Mongolian economy. More than 85 percent of the agricultural population depends on livestock production. The livestock-based industry contributes to around 10 percent of all export revenues. The country (with less than 3 million population) has more than 43 million livestock. This livestock sector consists almost entirely of nomadic pastoralism.

5. After transition, Mongolia experienced deindustrialization. People returned to herding as a livelihood, and the number of herding families doubled between 1990 and 1996. Without any restrictions or costs associated with the use of pasture, no quality based pricing and, until recent

years, a critical shortage of finance for the agriculture sector, the most frequent way for herders living in poverty to improve their marginal incomes has been to increase herd size. Hence, the size of the national herd has been steadily expanding, from 26 million in 1996 to 43 million by 2010.

6. Despite the expansion in total herd size, roughly 70 percent of herding families have subsistence herds of less than 100 animals. 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, especially in years when animal numbers have peaked relative to forage supplies. The winter dzud of 1999, 2000 and 2001 reduced the national herd of 34 million by one-third. The dzud of 2009 – 2010 resulted in the death of over 10 million animals out of more than 43 million, at an estimated cost of more than US\$ 340 million. As a result of these two dzuds, more than 20,000 households lost their livelihoods, which led to increased poverty levels and rural-urban migration.

7. The livestock industry in Mongolia as a whole is a very promising yet underdeveloped export industry, faced with mainly domestic obstacles. Mongolia's advantage is its organically bred large quantity of livestock. According to the 2008 animal census, Mongolia had 20 million goats, 18 million sheep, 2 million cattle, 2 million horses and 300,000 camels. By 2010 meat production had increased to around 300,000 tons with an export potential of about 10-15 percent. Most of the meat comes from animals slaughtered outside the abattoir system. Despite the large quantity of livestock, Mongolia has been unable to reap the benefits of exporting its meat and other by-products due to a number of domestic constraints. The industry's support system collapsed following the transition and is in need of system-wide upgrading. Currently nearly 90 percent of Mongolia's meat export is to Russia, which includes canned beef meat, and the rest is made up of horse-meat to Japan, mutton (and some live animals) to the Middle-East and other countries (e.g. Brunei, China), and canned pet-food to Korea. The average export price for Mongolian meat has been in the region of \$1.00/kg which is three to four times lower than the price received by Australian meat exporters. Mongolia's contribution to world meat exports is only about 0.5 percent and therefore a very small player with huge upside potential. The same can be said about the by-products from the livestock sector: wool, cashmere, milk and leather. To realize these gains, the industry must focus on a number of reinforcing measures along the supply-chain: a trace-back system for each animal, animal breeding and genetic improvement, animal nutrition and feeding regime, and animal health.

8. At present there are no cohesive supply chains in the livestock industry. It is possible that the domestic market can help to drive the needed developments in the sector. With a rapidly urbanizing population and growth in the number of wealthier, more discerning customers, demand is likely to increase for high quality products. In the capital city there has recently been an expansion of more formal retailing outlets, including supermarkets, which pay greater attention to marketing (in terms of quality of product, packaging and promotion). The response of the sector to this trend by offering more differentiated products is in its infancy. Urbanization and changing demand patterns are driving change in the livestock sector, including linkages between producers and markets. This project is aimed at strengthening these linkages.

9. To address poverty in the herding sector and protect and recover the pasture resource that sustains the rural economy, the Government will have to introduce policies that reduce or at least do not further increase the animal numbers, promote greater off-take of animals through the expansion of export markets, and pay more attention to quality-based pricing and animal productivity. In May 2010, the Government approved the National Livestock Program (NLP), which aims to develop a modern, competitive and sustainable livestock industry. The NLP priority areas are: 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, -biologically-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 accelerating economic turnover through an incentive system. The Government allocates no less than 3 percent of the national budget to the NLP.

10. In preparing the Global Agriculture and Food Security Program (GAFSP) proposal, the Ministry of Industry and Agriculture (MoIA) consulted with stakeholders (including donors and NGOs) and identified five key areas to be addressed. These priority issues are in line with the National Food Security Program (NFSP) and the NLP framework, and include: (i) underdeveloped agro-industries and value chains that remain stagnant and have not improved herder incomes; (ii) inadequate income and diet diversity due to herders' limited capacity to develop their livelihood-bases other than herding animals; (iii) undermined veterinarian services which lead to slow responses to infectious animal diseases and constrain effective veterinary service and disease surveillance; (iv) collapse of the breeding system resulting in lower livestock productivity partly due to inbreeding; and (v) lack of winter fodder that reduces livestock productivity and increases the risk of livestock mortality during dzud.

11. The Government, donors and the Bank have been active in the livestock sector for over a decade. The Bank's Sustainable Livelihoods project (SLP) has been mainstreamed into all the provinces of Mongolia and now supports livestock production, pasture management and rural community development in all aimags. The Swiss Development Corporation (SDC) and the United States Agency for International Development through Mercy Corps are active in livestock and pastureland management, and rural business development. These and many more programs from agencies such as GIZ, ADB, IFAD, AVSF, EU, FAO, MCC, CIDA (on quality upgrading, better pricing methods, business capacity development of herder groups, milk sector development, fodder supply system, food safety system, intensive livestock production systems, animal health systems, drugs and epidemic prevention, and rural income diversification) have laid the groundwork for the Livestock and Agricultural Marketing Project (LAMP).

12. More specifically, a number of productive partnerships have already been initiated by agencies such as the AVSF, the ADB, IFAD, Mercy Corps, GIZ, and SDC. These include upgrading of yak fiber with foreign processors (AVSF), linking small-scale producers/herders with processors of livestock products (IFAD), linking larger scale rural producers with larger processors of wool and cashmere (ADB), increasing value added for yak and camel products (SDC), strengthening linkages between rural businesses (Mercy Corps, dairy, meat & wool

processing), and generation and production of value added products, including mutton(Giz). LAMP will build on the lessons of these past and present initiatives.

13. **Rationale:** Through the International Development Associations' (IDA) rural development program, including the SLP and the Index-based Livestock Insurance Project (IBLIP), the Bank is playing a leading role in the donor community in the livestock sector, which has culminated in the MoIA officially requesting the Bank's leadership in donor coordination in the sector. This was also a factor in the selection by the Government of Mongolia (GOM) of the Bank, along with the Food and Agriculture Organization (FAO) of the United Nations, to be the supervising agency for this project. The role of the Bank in the project is a rational expansion of the Bank's portfolio in the livestock sector, which up to now has focused more on pasture management in the case of SLP and risk management in both SLP and IBLIP, and much less on production and marketing issues.

C. HIGHER LEVEL OBJECTIVES TO WHICH THE PROJECT CONTRIBUTES

14. Development priorities and Millennium Development Goals (MDG): The GOM's MDG-based comprehensive National Development Strategy (NDS) was developed in 2007 and approved as Resolution no. 12 of Parliament in January 2008. The strategy defines the GOM's policy of supporting human development in the country over the next fourteen years. Food security constitutes one of the key aspects of the Mongolian MDG targets outlined in the NDS. The GOM's commitment to eradicate extreme poverty and hunger (MDG Goal 1) is evident in the NFSP approved by Cabinet in February 2009 under Government resolution 32/2009.

15. Country Partnership Strategy (CPS): The Bank CPS for Mongolia for the period FY2013-2017 was discussed by the Board of Executive Directors on May 17, 2012. As with the previous Country Assistance Strategy (CAS) and Interim Strategy Note, the Bank will continue to support the "country's efforts to transform its economy into a world-class mining economy, to support economic development in urban and rural areas, and to address vulnerabilities. But there will also be emphasis on economic diversification, decentralization, and equitable access to social protection and basic services delivery so that growth is more inclusive". With this focus, the new CPS emphasizes building a sustained and diversified economic base and addressing continued vulnerabilities in rural areas. The rapid expansion of the country's economy driven by the mining boom raises concern that income inequality will increase and rural areas will be further left behind. The development of the livestock sector to support rural communities is an important aspect in addressing these inequalities.

16. The current United Nations Development Assistance Framework (UNDAF) covers 2007-2011. The Common Country Assessment has identified six features of Mongolia's human development that form the basis of the UNDAF. Two key aspects related to the proposed project are: (i) major demographic shifts are resulting from rising urbanization, imbalances in the distribution of population across the country, increasing internal migration and migration out of the country, growing vulnerabilities and limited expansion of local livelihood opportunities; and (ii) despite the economic expansion, income poverty remains widespread with close to 900,000 people living below the poverty line. Economic growth is generated through the mining sector

but more job opportunities are needed through a carefully planned process of industrialization combining improved local business capacity with international expertise and technology.

17. National Food Security Program: The NFSP (2009 – 2016) aims to provide the entire nation with secure supplies of accessible nutritious and safe food to enable healthy livelihoods and high labor productivity founded on the participation of the people, government, the public and private sectors. Lessons learned from the first National Plan of Action for Food Security (2001 to 2007) were used to develop an improved NFSP for the period of 2009 to 2016. The MoIA is responsible for implementing the program under the coordination of a high level inter-ministerial committee.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

18. The Project Development Objective (PDO) is to improve rural livelihoods and food security in selected aimags and soums through investments in enhancing productivity, market access and diversification in livestock-based production systems.

19. To achieve this objective and ensure maximum impact, the project will address a set of closely linked constraints in market access, price-quality relationships and livestock production (animal health, animal breeding, genetics and nutrition) that need to be treated in an integrated manner. The demonstration of these integrated, market-driven approaches in a small geographic area (pilot) will provide successful models that the GOM can replicate through the National Livestock Program (NLP). The project will also support pro-poor income growth and nutrition diversification through the production of horticultural products at the household level.

B. PROJECT BENEFICIARIES

20. The project will pilot the provision of advisory (extension) services to be delivered by private, public service providers and or NGOs to herder cooperatives in three soums each of five aimags declared disease free zones. The aimags are: (i) Arkhangai; (ii) Bayankhongor; (iii) Govi-Altai; (iv) Khovsgul; and (v) Zavkhan. These aimags were agreed upon with MoIA during project preparation and the soums were selected based on the following criteria: (i) access to markets; (ii) potential for fodder production; (iii) existence of herder groups/cooperatives; (iv) no overlap with on-going similar projects, and (v) demand for value chain development. Key beneficiaries will include: herder households, marketing agents/agencies/buyers, processing groups/agencies, veterinarians, and extension workers.

C. PDO LEVEL RESULTS INDICATORS

21. The expected key performance indicators against which results will be measured are:

- Number of intended and actual direct beneficiaries disaggregated by gender;
- Increase in household income from livestock and in selected cases horticultural products;
- Share of marketed products going through contracts and established companies;

- Percentage of increase in output of livestock products (meat, milk, wool, cashmere);
- Change in per capita consumption of various food ingredients, disaggregated by gender and vulnerable groups.

III. PROJECT DESCRIPTION

22. To achieve the PDO, the project will provide advisory (extension) services in the areas of animal health, nutrition (including fodder production), and the provision of improved breeding animals to herder cooperatives to improve the condition of their animals in order to increase quantity and quality of milk and meat as well as fiber production. The advisory services will be delivered by both public and private providers selected through a competitive process for each aimag. Their responsibilities will also include the development of business plans which should be technically and financially feasible enough to be approved by the soum steering committee and finally by the project steering committee and funded through the matching grant scheme.

23. The objective of the business plan is to ensure that the value addition is a viable option and that the enterprise will be run along sound business principles and will lead to additional income accruing to the herders. In addition, the service provider will support female headed households, families with below national average animal heads, and the unemployed to grow vegetables as a means of diversifying their sources of nutrition and income (a schematic representation of the design is presented in Annex 2). The selection of the service providers will therefore be based on their ability and capacity to either, develop new or strengthen existing cooperatives in line with government policy, provide livestock and horticultural extension services, prepare business plans together with the cooperatives, and facilitate productive partnerships between herders and buyers/processors.

24. The project will support the preparation of guidelines for value chains development for cashmere, wool, meat and milk under the FAO/TA component. The FAO/TA component will also prepare extension training materials on selected issues such as animal husbandry, markets, product quality, feasibility studies and business plan development in conjunction with the relevant departments of MoIA to be used in training extension agents, veterinarians, herders and NGOs involved in the project (a summarized matrix of FAO/TA support is provided in Annex 3).

25. The project will encourage commercial buyers/processors to make investments and partner with the cooperatives. This could be in the form of shareholding arrangements with the cooperatives and or firm contractual arrangements for the supply and purchase of products.

A. PROJECT COMPONENTS

26. The project, which will be aligned with the Soum Program, will be implemented through three inter-related components. The components are:

COMPONENT 1 – LINKING HERDERS TO MARKETS (US\$ 6.00 million grant)

27. The objective of this component is to create productive partnerships by linking producers of livestock products (meat, fiber, milk and horticultural products) to markets and diversifying sources of income and household nutrition. The component will also support traceability of products for participating herder cooperatives. The objective will be achieved through three specific sub-components as follows:

Sub-Component 1a: Meat and Fiber Market Development (US\$4.00 million)

28. The objective of this sub-component is to improve efficiencies along the value chain of the selected livestock products, namely: meat, cashmere, and wool through productive partnerships (PPs) between producer groups and buyers. This reduces the risks to agribusiness to invest in more remote regions and increases the value added income for herders. A unique combination of incentives, infrastructure, market conditions and sustainable supply is needed to create and sustain well-functioning productive partnerships. Formalized herder groups (NGOs or cooperatives) will be linked with buyers and or processors of meat and fiber. Investments with the herder groups would improve basic collection, handling, cleaning, sorting, packaging, storage and similar activities. This will allow partners in the value-chain to formulate profitable strategies and coordinate operations.

29. The component will strengthen contractual agreements and collaboration within value chains between partners, ensuring market development. Lessons learned from similar projects elsewhere show the need to support group organization and capacity development, partner sensitization of producer group needs and context and also to provide partnership facilitation. This will be provided through training and technical assistance by the service providers. The component will also undertake a review of recent market demand studies and a SWOT analysis as part of investment preparation and due diligence.

30. Attention will be paid to proactively identifying capable women's groups (formal and informal) during the beneficiary identification process. Additionally, needs assessments and training programs will identify any special requirements for training or technical support needed by women's groups. All applications for matching grants will require viable business plans that include the training required to build production and management capacity. It will be the responsibility of the selected service provider to ensure that productive partnerships are created between producers of meat and fiber.

Sub-Component 1b: Dairy Market Development: (US\$ 1.0 million grant)

31. The objective of this sub-component is to add value to milk and diversify the incomes of producers and link them to markets. The project will support investments in small-scale milk collection and processing plants and training to provide the opportunity to process dairy products locally, add value and extend the marketing season. The facilities will be owned by the herder cooperatives. The investment package will include all the equipment, tools, facilities, power, water and hygiene systems necessary to ensure safe food production. The training and technical assistance package will address on-farm and in-plant food safety, processing techniques,

marketing, financial management and cooperative management. All applications will require viable business plans that include the training required to build production and management capacity.

Sub-Component 1c: Pilot Horticulture Production (US\$1.0 million grant)

32. The objective of this subcomponent is to diversify the sources of household nutrition and incomes for small scale herders. The project will support income and nutrition diversification through horticulture production and processing. This is a pro-poor investment, therefore horticulture production will focus on female-headed households, groups of unemployed families and herders with animal heads below the national average, to establish basic vegetable production plots. Beneficiary selection will be done in cooperation with the *soum* social welfare office. The matching grants will introduce productivity enhancing technologies, support diversification and improve post-harvest marketing. Small-scale processing at the *soum* level that allows all local growers to add value and shelf-life to their products will also be provided for by a matching grant. Women headed households will not make any contribution to the matching grant, all others will provide a 5 percent contribution in kind or cash.

COMPONENT 2 – RAISING LIVESTOCK PRODUCTIVITY AND QUALITY (US\$ 4.0 million grant)

33. This component aims to ensure productivity increases and quality products for the markets. Support will be provided through extension services in the areas of animal health, nutrition, breed improvement and feeding to improve the productivity of the five traditional species (sheep, goat, horse, cattle/yak, camel) within the semi-nomadic production system through breeding, feeding and animal health. The target group for support will be the herder groups participating in component 1 to ensure complementarity and synergy and will also be implemented through three sub-components as described below.

Sub-component 2a: Promoting Animal health: (US\$ 1.5 million grant)

34. This sub-component aims at improving animal health status and productivity. This will be accomplished through two streams of investment: (i) supporting and implementing national level programs for foot and mouth disease (FMD) and brucellosis working in collaboration with other programs and projects active on these topics; and (ii) grassroots veterinary services and herd health management in the 5 selected aimags. Specific 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 brucellosis control campaign; 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. Herders are expected to pay for the cost of treatment, drugs and artificial insemination.

Sub-component 2b: Animal Breeding and Genetic Improvement (US\$ 1.5 million grant)

35. This sub-component will improve animal breeding and genetics. The breeding program will aim at improving economic traits demanded by end-users within the 5 selected *aimags* focusing initially on the 15 selected soums during the project lifetime. The genetic improvement program will support the preservation of indigenous Mongolian sheep and cashmere goat breeds. This is consistent with the national law on genetic resources and the objectives for livestock genetics indicated in the NLP.

36. In the absence of solid data, male animals will be selected on conformation means, look, and in line with breed standards. The project will supply males on loan to herders during the mating season to address the issue of inbreeding. In addition, 5 nucleus herds (one in each *aimag*) will be established for cashmere goats and sheep to supply improved male animals. Dairy breed improvement will be achieved through improvements in artificial insemination (AI) capacity. Beef breed improvement will target improved carcass size and growth rates, economic traits for which packers are beginning to offer differentiated prices. This will be achieved by providing improved beef bulls from the dairy program to herders. The genetic recordkeeping programs required for these initiatives can be supported directly or indirectly through the Dairy Herd Improvement Program which was established by the FAO. A detailed breeding plan will be prepared through the FAO project to guide the implementation of the breeding program.

Sub-component 2c: Animal Nutrition (US\$ 1.0 million grant)

37. This sub-component will improve herders' capacity to produce feeds and manage livestock feeding programs especially during the winter season. The improved nutritional levels will improve reproductive rates and weight gains and contribute directly to enhancing household incomes.

38. Matching grant financing will be provided for the establishment of forage production plots in a way that will enable citizens to enclose an area of land, in agreement with the soum authorities, to be used for winter fodder conservation. The project will support micro-scale forage processing facilities at *soum* level and participatory on-farm research. Selected herders herd will be used for demonstration purposes so that producers at large can better understand the relationship between nutrition, productivity and profitability.

39. Four types and scales of investment have been identified. The actual number and exact type of investment will depend on herder groups that are identified, the willingness and ability of herder groups to take on the investments, and the approval of a financially and technically viable business plan. The anticipated types of matching grant investments include: (i) large-scale forage plots (50 ha) growing improved perennial forages (alfalfa, brome grass) and cereals (barley and oats) to be fed as baled or as silage to beef cattle on a commercial basis; (ii) medium scale plots (10-20 ha) of alfalfa and/or cereals (barley and oats) for dairy farms and nucleus herds of goats and sheep; (iii) support to silvo-pastoralism whereby 15 hectares of land is utilized for a combination of livestock feeds, vegetables, potatoes and berry bushes; and (iv) micro-scale processing units to be used by herder groups at the *soum* to make fodder products. The project

will learn from the experience of other projects piloting land use rights for fodder production and complement the activity.

40. Special attention will be paid to proactively identifying capable women's groups (formal and informal) who are engaged in animal activities. Additionally, needs assessments and training programs will identify any special requirements for training or technical support needed by women in relation to livestock nutrition, feed preparation and feeding programs. Beneficiaries are expected to contribute 10 percent of total investment for all matching grants applications and an additional 2 percent by the soum government, while women headed households will contribute 5 percent of the total value of investment. In an effort to ensure transparency and fairness in the process, all matching grants will be administered through matching grants committees at the soum level, and national level with membership and functions described in the accompanying Matching Grants Manual (MGM). A Matching Grants Officer with qualifications and experience acceptable to the Bank will be selected through a competitive process at the national level to assist the Project Coordinator in managing the grants. The selected candidate will have day to day responsibility to ensure the effective delivery of the matching grants as stipulated in the MGM.

Component 3: Project Management (US\$1.0 million grant)

41. This component will support the coordination of project activities and the fiduciary functions of the Project Implementation Unit (PIU) to be established by the MoIA. The PIU will be staffed and equipped to enable it to effectively carry out these activities. The sub component will finance incremental staff, consultants, operating costs, technical assistance, training, M&E activities and impact assessments, information dissemination and annual audits.

42. The project will also support the coordination of donor funded programs in the livestock sector, by holding semi-annual meetings to review implementation progress and provide policy guidance to MoIA. In the process of the reviews, the project will ensure that the objectives and implementation arrangements are aligned with the Soum Program being prepared by the Ministry of Economic Development. The program seeks to link herders to markets by providing them with support services through centers of excellence yet to be established.

43. The Project will engage the services of a service provider or an NGO with considerable experience in value chain development to support herder/groups in developing productive partnerships with marketers. The terms and conditions and contractual obligations for the selected service providers and NGO are described in the Matching Grants Manual.

B. PROJECT FINANCING

(i) Lending Instrument

44. The proposed project will be financed by a specific investment grant with International Development Association ("the World Bank") acting as trustee and Supervising Entity of the Global Agriculture and Food Security Program. The grant is in an amount of \$11 million to assist in financing the Project for a period of 4 years.

(ii) Tables on Project Cost and Financing

45. The total project financing is US\$11.49 million which will be spent for investment and project management activities under the supervision of the World Bank. FAO will provide additional TA to MoIA for the capacity building and preparation of guidelines for the investment funds to the tune of US\$1.5 million. Beneficiary contribution is estimated at US\$ 446,000 and participating Soums will contribute \$40,000. The GOM will provide in-kind contributions of office space and staff at the head office and soums.

Table 1 Summary table of project cost by components:

| Project Components | Project Cost (US\$ million) | Grant Financing (US\$ million) | % Financing |
|---|--|---|------------------------|
| 1. Linking Farmers to Markets | 6.258 | 6.00 | 95.9 |
| 2. Improving Livestock Productivity and Quality | 4.228 | 4.00 | 94.6 |
| 3. Project Management | 1.00 | 1.00 | 100 |
| Total Base cost | 11.486 | 11.00 | 95.8 |
| Physical Contingencies | | | |
| Price contingencies | | | |
| Total Project Costs | 11.486 | 11.00 | 95.8 |
| Interest during construction | | | |
| Front-end fee | | | |
| Total Financing Required | 11.486 | 11.00 | 95.8 |

C. LESSONS LEARNED AND REFLECTED IN THE PROJECT DESIGN

46. Project design was guided by the findings of recent analytical work and a review of best practice during the technical missions in September and November 2011. It also draws on the positive experience gained under the SLP I and II as well as the work of the SDC (Green Gold Project), AVF and USAID Mercy Corp business development projects in the Gobi region. The major lessons learned relate to the need for private sector demand driven activities to have a central role in project design and implementation. Hence, the inclusion of partnerships between private sector processors and herder groups to be facilitated by a service provider. Forage investments are tied to market opportunities for meat, dairy and fiber. Effective national animal health care in an environment dominated by private smallholders requires an appropriate division of responsibilities and an effective partnership between public and private veterinary service providers.

47. Previous attempts at genetic improvement lacked sustainability due to lack of secure public funding. Hence, the project will work with private herders and only a small component (genetic analysis) will later require government support. In horticulture, market orientation and storage facilities to extend the marketing season are important to the success. Production on a

common plot of land and the delivery of participatory training programs support group formation and personal development as families undergo this change in livelihood.

IV. IMPLEMENTATION

A. INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS

48. Overall project coordination and fiduciary management will be the responsibility of the PIU under MoIA. The PIU will be responsible for day-to-day activities of the project under the overall guidance of the Director General, Department of Strategic Policy and Planning (DG-DSPP), and will prepare the annual work plan, including a procurement plan and budget. It will report technical and financial progress to the Project Steering Committee (PSC) semi-annually. The PIU will facilitate contracting consultant service providers and coordinate activities in the start-up period (including project launch), ensure activities are implemented on time, and monitor progress and results.

49. At the Soum-level, the MoIA Coordinator (Head of the VABU) will assume full responsibilities as Soum Coordinator (SC) for the project, and organize events, and monitor implementation together with the extension agents.

50. **Partnerships:** The FAO with financing through the GAFSP is implementing a complementary project that will provide supplemental technical assistance and support related activities that will contribute to the same PDO. The FAO project will finance the preparation of the PIM which will be jointly prepared with the Bank, incorporating Bank rules and guidelines as well as manuals and guidelines to guide the investment proposal contained in this PAD. (See Annex 3 for a matrix showing expected outputs from the FAO project).

51. The FAO managed project also includes a detailed monitoring plan as well as the preparation of the Monitoring and Evaluation system. In this regard, additional support will be provided by the Development Impact, Monitoring and Evaluation (DIME) initiative which will help to organize and finance the baseline study and to design and implement impact evaluation. The project would work with the Monitoring Department of MoIA in this regard.

B. RESULTS MONITORING AND EVALUATION

52. Monitoring and Evaluation (M&E) of the proposed project will follow the guidance provided by the M&E plan prepared by the GAFSP steering committee¹, with some adaptation for the technical assistance and capacity development nature of the project. Monitoring systems will include a Management Information System (MIS), an internal progress monitoring system and an independent process monitoring system. Participatory M&E will be used at the soum level.

53. Overall responsibility for 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 who will work closely

¹ <http://www.gafspfund.org/gafsp/content/monitoring-and-evaluation>

with the SC in each *Soum*. Training will be provided for the specific tasks to be fulfilled. Other staff of the PIU and MOIA and will be trained in the project M&E program.

54. Implementation progress and performance will be assessed based on the indicators identified in Annex 1 and supplemented by detailed Project Management Reports and Financial Management Reports in a format agreed upon with IDA. Baseline studies, surveys and impact assessments will be carried out for project activities at specified times. Evaluation will be carried out using internal evaluation and independent external impact evaluation.

55. **Internal Evaluation:** The PIU M&E officer will coordinate all project evaluation activities based on the performance indicators of the results based monitoring and evaluation framework. The PIU management will carry out its own assessment at various stages of project implementation, and consolidate the findings in an Annual Report. A comprehensive evaluation report will be provided by the PIU at project completion. The PIU will also organize periodic workshops inviting key project stakeholders to discuss and consolidate their views and findings for the preparation of the Annual Reports and the final evaluation report.

56. **Independent External Impact Evaluation:** All GAFSP projects are required to undergo an independent evaluation of implementation (IEI). The objective of the independent impact evaluation is to examine fully the achievements of the project development objectives, in particular the level of income generation and food security. GAFSP has signed an agreement with the Development Impact Evaluation Initiative (DIME) to carry out impact evaluations for GAFSP projects, and Mongolia has agreed to this additional support (which will be GAFSP financed and executed, so not financed from the US\$11 million allocated for the project)

57. In the process, DIME will use impact evaluation to build the capacity of government and project officials. The impact evaluation will consist of a study of the causal effect of LAMP components on PDO level Results Indicators as well as of the impacts of various component-specific interventions. The former will consist of a rigorous analysis of causality by establishing a valid comparison group of herders who will not benefit from the project, and comparing these herders to project participants. The latter will respond to demand from MoIA officials and other partners and would be done for the sake of identifying ways in which the different components could be improved on a yearly basis. For example, multiple possible ways of achieving beneficial behavioral changes, disseminating information, or increasing take-up of project services could be tested against one another so that in each case the most effective project design components can be reliably identified and implemented throughout the project

C. SUSTAINABILITY

58. 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 not less than 3 percent of the national budget on an annual basis until 2021. This project supports the main objectives of the NLP and may act as a pilot program for the NLP on a national basis.

- *Institutional sustainability:* The project will work with the newly formed Veterinary and Animal Breeding Units strategically as to build their capacity within their established mandate

while using sub-contracting to informal groups for the delivery of services, especially in the area of extension. Ownership of nucleus herds will be by herder groups and/or cooperatives while male breeding flocks will be owned and managed by breeding cooperatives affiliated with private veterinarians.

- *Financial sustainability:* The project interventions do not impose recurring costs except for the nucleus herds, where a long-term GOM commitment to the sampling and genetic evaluation program and some recurring operating costs is required. A small per kg sales fee (check-off) on processed fiber would provide long-term financial stability to this program.
- *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.
- *Social and environmental sustainability:* Socially, the project 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. The genetic improvement program will preserve the best indigenous Mongolian breeds which are now at risk.

V. KEY RISKS AND MITIGATION MEASURES

A. RISK RATINGS SUMMARY TABLE

| | |
|--|-----------------|
| Stakeholder Risk | Moderate |
| Implementing Agency Risk | |
| - Capacity | Moderate |
| - Governance | Moderate |
| Project Risk | |
| - Design | Moderate |
| - Social and Environmental | Moderate |
| - Program and Donor | Low |
| - Delivery Monitoring and Sustainability | Substantial |
| Overall Implementation Risk | Moderate |

B. RISK RATING EXPLANATION

59. The overall risk rating of the project is set as Moderate.

Low Capacity for implementation: This is the first World Bank project to be managed by the Ministry of Industry and Agriculture and although they have been implementing other donor funded projects, is quite new to Bank procedures and processors and is likely to affect the speed of project implementation. As mitigation measures, the FAO will implement a Technical

Assistance project in parallel with the Bank supervised project which will aim to fill current technical gaps in the Ministry and develop capacity to support the technical aspects of the project. The project will recruit competent and experienced staff to man the PIU. The Bank fiduciary team will train and continue to supervise activities of the recruited staff to ensure capacity is built and retained for project management purposes.

Design: The project aims to be comprehensive in scope in terms of support to the livestock sector, covering marketing and production issues. In addition, the project aims to support diversification away from the livestock sector, and hence has a horticulture component. This provides a wide scope of activities, which may test the implementation capacity of the PIU / Ministry of Agriculture. As mitigation measures, full implementation in the provision of advisory services will be contracted out to a private service provider in each project aimag to avoid a number of agencies providing extension services to the same groups of herders and vegetable producers. In addition, herder groups would be encouraged to adopt risk management practices as provided under the Bank supported Index-based Livestock Insurance Project. This project will be operational throughout the country by 2012, so purchasing insurance will be an option for herder groups. Since the project is a pilot testing approaches to support herder cooperatives, improvements to product quality and linkages to markets, it will therefore be monitored closely, with changes made when necessary and in particular at mid-term, as supported by findings during supervision missions

VI. APPRAISAL SUMMARY

A. ECONOMIC AND FINANCIAL ANALYSES

60. The economic and financial analysis of Mongolia's Livestock and Agricultural Marketing Project provides the justification for the economic and financial soundness of the project. To ascertain the economic viability of the project, a cost benefit analysis (CBA) technique of evaluating economic viability of investment projects was performed using a 12 percent discount rate, which represented the opportunity cost of capital in Mongolia. Key project benefits assumed were: (i) efficiency gains in processing, marketing and transporting of value-added products; (ii) reduced losses and mortality of animals due to improvement in breeding and animal health techniques; and (iii) reduced expected losses due to improved techniques of protecting livestock against severe weather conditions (*dzud*), and improved techniques in animal nutrition.

61. A detailed analysis of project benefits and costs resulted in positive net present values (NPV) and economic rates of return (ERR) for all the interventions included in the analysis. Overall, the analysis resulted in NPV of \$7,260,360 and an ERR of 42 percent. Further analysis conducted to address the uncertainties associated with the choice of parameters for the CBA also showed that the ERRs and NPVs of the proposed activities are not very sensitive to changes in key parameters (sales prices and operation costs), with the project's switching values corresponding to small variations in sales prices or operating costs. (*see Annex 6 for a detail discussion of the analysis*).

B. TECHNICAL

62. Overall, the project is considered technically sound given that it addresses the constraints to small herders' competitiveness in a balanced way, with Component 1 supporting small herders' private business initiatives, and Component 2 focusing on public functions to improve the support services framework. Under Component 1 the project will provide a combination of technical and financial support to demand-driven subprojects. Direct beneficiaries will be formally established herders' organizations, consistent with the fact that aggregation of production and production costs is essential to improve small herders' access to more profitable markets. When it comes to accessing markets and strengthening small herders' organizational and managerial capacities, key technical assistance will be provided under the project.

63. The project will call upon the engagement of private providers (design and implementation of business proposals, online agri-business information center) and on collaborations with business associations and professional unions (e.g. through the annual multi-stakeholders meeting, and the *Aimag/Soum* councils) for advice and support in design and monitoring. The project also adopts a flexible approach to support important target groups, such as women. Finally, it emphasizes environmental sustainability through the mainstreaming of improved agricultural practices in sub-projects.

C. FINANCIAL MANAGEMENT

64. The responsibility for managing Bank grant proceeds, including the management of the Designated Account (DA), will be jointly taken by the Ministry of Finance (MOF) and the Ministry of Industry and Agriculture (MoIA). A financial management capacity assessment of the MoIA has been conducted by the Bank and actions to strengthen the project's financial management capacity have been agreed with the implementing agency, MoIA. The FM assessment has concluded that with the implementation of these proposed actions, the financial management arrangements will satisfy the Bank's minimum requirements under OP/BP 10.02. Annex 3 provides additional information on Financial Management. The draft Financial Management Manual has been updated at negotiations and will be finalized within three months after project effectiveness as an integral part of the project implementation manual.

D. PROCUREMENT

65. The PIU in MoIA will have overall responsibility for procurement management under the project. MoIA will be responsible for procurement planning, procurement cycle management and contract management for contracts to be signed by MoIA. Procurement of goods, works and services under the matching grants will be the responsibility of the recipients and will be based on Community Participation in Procurement procedures described in the Project Implementation Manual. MoIA will however have oversight for procurement under the matching grants and will provide technical, procurement and implementation support to the beneficiary groups with the assistance of the Soum Steering Committees. With the concurrence of the beneficiary groups, the PIU may aggregate the requirements of various groups for similar items and carry out the procurement on behalf of the beneficiary groups.

66. The key procurement risk is that since this is the first Bank investment operation with MoIA as the implementing agency, the PIU is not familiar with the Bank's procurement and consultants selection policies and procedures. As a result there is the possibility of delays in processing procurement and non-compliance with Bank Procurement/Consultant Guidelines. The procurement risk is complicated by the current uncertainty regarding the role of the newly created Central Procurement Agency (CPA) under the Office of the Deputy Prime Minister in processing procurement in projects in Mongolia financed by international financial institutions (IFIs). The CPA became effective under the Public Procurement Law of Mongolia (PPLM) only in October 2012 and is not yet fully staffed and operational.

67. In order to mitigate the identified risks several mitigation measures have been agreed including: (i) Bank Management in Mongolia is working with other development partners and MOF and the office of the Deputy Prime Minister to clarify whether Line Ministries are also required under projects financed by IFIs to transfer the procurement function to the CPA; (ii) MoIA is to immediately assign/appoint a Procurement Officer with qualifications and experience acceptable to the Bank to work in the PIU; (iii) The Bank is to provide accelerated procurement training to key staff of the PIU/MoIA (and CPA if necessary); (iv) a user friendly Project Implementation Manual that will provide guidance to beneficiaries on the details of the procurement procedures under the Grant scheme is under preparation and to be finalized before project effectiveness ; (v) MoIA is to hire consultants including NGOs, universities and individuals to provide technical assistance and implementation support to beneficiary groups; (vi) MoIA with the assistance of the MOF Inspectorate is to hire independent consultants to carry out periodic technical verification and procurement audits of activities under the grants scheme; and (viii) The Bank and Asia Development Bank (ADB) are to continue to provide technical assistance and financial support to MOF and CPA in organizational strengthening, setting up systems and standard operational and reporting procedures, procurement capacity development and establishing procurement auditing procedures.

68. The PIU is preparing: (i) a tentative procurement plan for contracts to be procured by MoIA for the entire duration of the project; and (ii) a detailed and comprehensive procurement plan for the first 18 months of project implementation. The procurement plan for contracts for which procurement action is to take place in the first 18 months of project implementation has been reviewed by the Bank during project appraisal, and agreed at project negotiations. Further details on procurement are provided in Annex 3.

E. SOCIAL (INCLUDING SAFEGUARDS)

69. Safeguards clearance was transferred to the SMU on January 2012, and in the memo, it was agreed and OP 4.01 environmental assessment (EA) was triggered and the other two policies OP 4.09 (Pest Management) and OP 4.10 (Indigenous Peoples) marked as to be determined (TBD). Finally, OP 4.09 was triggered and a pest management plan prepared (PMP) as part of the environmental management plan (EMP). OP 4.10 was not triggered primarily because the five pilot aimags selected for the project did not include any of the aimags in the far west of the country where indigenous people are located.

70. **Public Consultation and Disclosure.** In accordance with Bank Safeguard policies, public consultations were conducted, with local farmers and other stakeholders such as officials of project soum administration and ASIA and ADNET officials/staff, inspectors and local farmers on April 25-29 and on May 5-7, 2012. Their opinions and concerns have been taken into account in the EA safeguards documents. The EMP including the PMP was disclosed locally on September 17, 2012 at the local governmental website and province libraries. The final EA document was disclosed at the Bank Info Shop on October 31, 2012.

71. **Gender.** Mainstreaming gender to ensure equity and empowerment will be a core aspect of project implementation. To advance this, a gender strategy for the project that takes into account all component activities will be developed. The strategy will have an action plan that will translate it into concrete actions based on component activities and guided by the results framework which has a number of indicators with expected gender outcomes. The action plan will be costed and included in annual work plans and budgets. In addition, all studies and follow up analysis, activities (based on the action plan) and monitoring and evaluation will be guided by gender considerations that will ensure the incorporation of the interests and needs of men and women in planning, implementation and monitoring of project activities. The focus on activity and income diversification of the project is expected to have positive impact on women and contribute to gender equity and empowerment for the benefit of the social structure

F. ENVIRONMENT (INCLUDING SAFEGUARDS)

72. This is a Category B project. Applicable environmental safeguard policies include: Environmental Assessment (OP4.01) and Pest Management Plan (OP4.09).

73. **Environmental Assessment (OP4.01).** An EMP was developed in accordance with Bank Operational Policy OP4.01. The EMP includes an analysis of the potential project impacts, mainly (i) impacts of improved fodder & vegetable production in the project area, such as stress on water resources due to the new wells that may be dug to support increased local fodder and vegetable production and any irrigation undertaken, and soil erosion; and (ii) waste discharged from small-scale processing facilities. The EMP proposes adequate mitigation measures including Environmental specifications for contractors to mitigate construction related impacts. The EMP also specifies a monitoring plan, institutional arrangements, capacity building activities, and the budget for the EMP implementation.

74. **Pest Management (OP4.09).** The project will not procure or supply any pesticides. However, pesticides use may be induced by the improved fodder and vegetable production activities. A Pest Management Plan, as an annex for the EMP, has been developed, proposing necessary activities to mitigate and prevent potential risks and negative impacts of using and distributing pesticides. The proposed mitigation measures consist of, among others: (i) promoting practices which reduce risks in the handling of pesticides and minimize adverse effects on humans and the environment; (ii) promoting IPM to reduce the use of toxic pesticides; (iii) training and capacity building; (iv) introducing biological and botanical pesticides and promoting the development of alternatives like biological control methods and techniques, non-chemical pesticides and pesticides of low risk to humans and the environment; (v) strengthening monitoring; and (vi) reinforcing regulatory aspects. Implementation of the PMP will be

undertaken by all partners and stakeholders of LAMP. The PMP also specifies the institutional arrangement, monitoring requirements, and the budget for the PMP implementation.

75. **Public Consultation and Disclosure** In accordance with Bank Safeguard policies, public consultations were conducted, with local farmers and other stakeholders such as officials of project soum administration and ASIA and ADNET officials/staff, inspectors and local farmers on April 25-29 and on May 5-7, 2012. Their opinions and concerns have been taken into account in the EA safeguards documents. The EMP including the PMP was disclosed locally on September 17, 2012 at the local governmental website and province libraries. The final EA document was disclosed at the Bank InfoShop on October 31, 2012.

| Safeguard Policies Triggered by the Project | Yes | No |
|--|-------------------------------------|-------------------------------------|
| Environmental Assessment (OP/BP 4.01) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Natural Habitats (OP/BP 4.04) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Pest Management (OP 4.09) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Physical Cultural Resources (OP/BP 4.11) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Involuntary Resettlement (OP/BP 4.12) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Indigenous Peoples (OP/BP 4.10) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Forests (OP/BP 4.36) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Safety of Dams (OP/BP 4.37) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Projects in Disputed Areas (OP/BP 7.60)* | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Projects on International Waterways (OP/BP 7.50) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

* *By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas*

ANNEX 1: RESULTS FRAMEWORK AND MONITORING

Mongolia: Livestock and Agricultural Marketing Project

| | Indicator Name | Core | Unit of Measure | Baseline | YR1 | YR2 | YR3 | YR4 | Frequency | Data Source/ Methodology | Responsibility for data Collection |
|--|--|--------------------------|-----------------|----------|------|------|------|------|--|---|------------------------------------|
| PDO Level 1 Results Indicators | | | | | | | | | | | |
| 1 | (GAFSP)Number of intended and actual direct beneficiaries, gender disaggregated | <input type="checkbox"/> | Number | 0 | 1000 | 5000 | 8110 | 8110 | annually | PIU records | PIU |
| 2 | (GAFSP) Increase in household income from livestock and in selected cases horticultural products. | <input type="checkbox"/> | Text | 0 | 2% | 10% | 15% | 20% | baseline, mid-term and upon completion | Survey of household income in project and control groups | Soum extension workers, DIME |
| 3 | Share of marketed products going through contracts and established companies. | <input type="checkbox"/> | Text | 0 | 0 | 20% | 80% | 100% | Baseline, Mid-term and upon completion | Survey of household agri income by project and control team | Soum extension workers DIME |
| 4 | Percentage of increase in output of livestock products (meat, milk, wool, cashmere) | <input type="checkbox"/> | Text | 0 | 0 | 5% | 10% | 20% | Baseline, mid-term and upon completion | Survey of project and control team | Soum extension workers, DIME |
| 5 | (GAFSP) Change in per capita consumption of various food ingredients, disaggregated by gender and vulnerable groups. | <input type="checkbox"/> | Text | 0 | 0 | 2% | 3% | 5% | Baseline, mid-term and upon completion | Household Nutritional survey | Soum extension workers, DIME |
| Intermediate Results Indicators | | | | | | | | | | | |
| 1 | No. of functioning productive partnerships | <input type="checkbox"/> | Number | 0 | 0 | 5 | 10 | 15 | annually | Project records | PIU |
| 2 | Increase of farm production under improved post-harvest management (i.e. value chains) (GAFSP) | <input type="checkbox"/> | Number | 0 | 0 | 5 | 10 | 20% | annually | Project, company and association records | PIU and enterprises |

| | | | | | | | | | | | |
|-----|--|--------------------------|--------|-----|--------------------|--------------------|--------------------|--------------------|----------|--|-----------------------------|
| 3 | Number of herder cooperatives linked to markets | <input type="checkbox"/> | Number | 0 | 0 | 5 | 10 | 15 | annually | Soum records, participating households | PIU, soum, government, MoIA |
| 4 | No. of women trained and engaged in horticulture production | <input type="checkbox"/> | Number | 10 | 20 | 30 | 40 | 50 | annually | Soum records, participating households | PIU, soum, government, MoIA |
| 5 | Number of herders who have adopted improved animal husbandry technologies (GAFSP indicator) disaggregated by gender | <input type="checkbox"/> | Number | 0 | 1000 | 3000 | 7000 | 8000 | annually | project record | PIU, soum |
| 6 | Number of collaborative research | <input type="checkbox"/> | Number | 0 | 2 | 2 | 4 | 5 | annually | Project records | PIU |
| 7 | Improved animal productivity related to nutrition | <input type="checkbox"/> | Text | 0 | see sub-indicators | see sub-indicators | see sub-indicators | see sub-indicators | annually | NH records, participating households | PIU and RIAH |
| 7-1 | increased reproductive rates | <input type="checkbox"/> | Text | 0 | 0 | 1% | 2% | 2% | | | |
| 7-2 | increased birth weight | <input type="checkbox"/> | Text | 0kg | 0 | 2kg | 3kg | 5kg | | | |
| 7-3 | increased growth rates | <input type="checkbox"/> | Text | 0 | 0 | 2 | 3 | 5 | | | |
| 7-4 | increased carcass weight | <input type="checkbox"/> | Text | 0 | 0 | 2kg | 3kg | 5kg | | | |
| 8 | Animal Health - improved capacity to implement disease control programs | <input type="checkbox"/> | Text | 0 | see sub-indicators | see sub-indicators | see sub-indicators | see sub-indicators | annually | VABA records, Assessment | PIU, VABA |
| 8-1 | Number of target group with use or ownership of land under forage production (disaggregated by female headed households) | <input type="checkbox"/> | Text | 0 | 15 | 30 | 45 | 60 | | | |
| 8-2 | Number of herders participating in training and awareness events (disaggregated by gender) | <input type="checkbox"/> | Text | 0 | 500 | 4000 | 7000 | 8000 | | | |

| | | | | | | | | | | | |
|-----|--|--------------------------|--------|---|--------------|--------------|--------------|--------------|---------------|--|------------------------------|
| 8-3 | Number of herders practicing routine health regime to control endo and ecto-parasitic diseases (disaggregated by gender) | <input type="checkbox"/> | Text | 0 | 500 | 4000 | 7000 | 8000 | | | |
| 8-4 | Existence and use of cold chain and SOPs for vaccine and sample transportation | <input type="checkbox"/> | Text | 0 | 0 | 1 | 3 | 5 | | | |
| 9 | Genetics and breeding - no. of nucleus flocks established | <input type="checkbox"/> | Number | 0 | 0 | 5 | 5 | 5 | annually | project records from NH and multiple herds | PIU, NHs |
| 10 | Genetics and breeding - no. of improved males distributed from nucleus flock | <input type="checkbox"/> | Number | 0 | 0 | 500 | 1000 | 1500 | annually | Project records from NH and multiple herds | PIU, NHs |
| 11 | Genetics and breeding - number of AI operators trained | <input type="checkbox"/> | Number | 0 | 30 | 60 | 90 | 904 | annually | Project records from NH and multiple herds | PIU, NHs |
| 12 | Feeds and feeding - ha of land allocated to forages at the soum | <input type="checkbox"/> | Text | 0 | 200 | 1000 | 1500 | 3000 | annually | Soum records, participating households | PIU, soum, government, oMOIA |
| 13 | Feeds and Feeding - Number of herders trained on forage management and animal feeding | <input type="checkbox"/> | Number | 0 | 200 | 2000 | 6000 | 8000 | annually | Soum records, participating households | PIU, soum, government, MoIA |
| 14 | Efficient and effective project management | <input type="checkbox"/> | Text | 0 | Satisfactory | Satisfactory | Satisfactory | Satisfactory | semi-annually | supervisions, audits, mid-term evaluation, ICR | PIU, IDA |
| 15 | Quality of the financial reports and audits | <input type="checkbox"/> | Text | 0 | Satisfactory | Satisfactory | Satisfactory | Satisfactory | semi-annually | supervisions, audits, mid-term evaluation, ICR | PIU, IDA |
| 16 | Quality of project progress reports | <input type="checkbox"/> | Text | 0 | Satisfactory | Satisfactory | Satisfactory | Satisfactory | semi-annually | supervision, audits, mid-term evaluation | PIU, IDA |
| 17 | Quality of the M&E reports | <input type="checkbox"/> | Text | 0 | Satisfactory | Satisfactory | Satisfactory | Satisfactory | semi-annually | supervision, audit, mid-term review | PIU, IDA |

| | | | | | | | | | | | |
|----|---|--------------------------|--------|---|-----|-----|-----|-----|----------|----------------|-----|
| 18 | Number of participants in M&E workshops, training events, seminars, conferences etc (disaggregated by gender and affiliation) | <input type="checkbox"/> | Number | 0 | 150 | 300 | 300 | 600 | annually | project record | PIU |
|----|---|--------------------------|--------|---|-----|-----|-----|-----|----------|----------------|-----|

ANNEX 2: DETAILED PROJECT DESCRIPTION

MONGOLIA: Livestock and Agricultural Marketing Project

Project Development Objective

1. The PDO is to *improve rural livelihoods and food security in selected aimags and soums through investments in enhancing productivity, market access and diversification in livestock-based production systems.*
2. To achieve this objective and ensure maximum impact, the project will address a set of closely linked constraints in market access, price-quality relationships and livestock production (animal health, animal breeding, genetics and nutrition) that need to be treated in an integrated manner. The demonstration of these integrated, market-driven approaches in a small geographic area (pilot) will provide successful models that the GOM can replicate through the National Livestock Program (NLP). The project will also support pro-poor income growth and nutrition diversification through the production of horticultural products at the household level.

PDO level Results Indicators

3. Key results indicators are:
 - (i) number of intended and actual direct beneficiaries disaggregated by gender
 - (ii) Increase in household income from livestock and in selected cases horticultural products;
 - (iii) Share of marketed products going through contracts and established companies; and
 - (iv) Percentage of increase in output of livestock products (meat, milk, wool, cashmere);
 - (v) Change in per capita consumption of various food ingredients, disaggregated by gender and vulnerable groups.

Project beneficiaries:

4. The project is expected to pilot the provision of advisory (extension) services to be delivered by service/public and or NGOs to herder cooperatives three soums each of five aimags declared disease free zones. The aimags are: (i) Arkhangai; (ii) Bayankhongor; (iii) Govi-Altai; (iv) Khovsgul; and (v) Zavkhan. These aimags were agreed upon with the MoIA during project preparation who went on to determine the soums based on the following criteria: (i) (access to markets; (ii) potential for fodder production; (iii) existence of herder groups/cooperatives; (iv) no overlap with on-going similar projects and; demand for value chain development. Key beneficiaries will include: herder households, marketing agents/agencies/buyers, processing groups/agencies, veterinarians, and extension workers.
5. The project will be implemented in 15 soums as shown in the Table 1 below. The total herder house hold population to be reached directly by the project is 8110 (28,385 total population, family members included). It is estimated that another 800 extension agents and processors will also benefit directly through the training activities.

Table 1. Target Population

| Aimagsoum | Aimag Total Population | Soum Total Population | Aimag Herder Population | Soum Herder HH | Aimag Livestock Population | Soum Livestock Population |
|-------------------------|-------------------------------|------------------------------|--------------------------------|-----------------------|-----------------------------------|----------------------------------|
| Arkhangai | 83900 | | 28000 | | 2984300 | |
| <i>Chuluut</i> | | 3781 | | 817 | | 120492 |
| <i>Khangai</i> | | 3167 | | 587 | | 79575 |
| <i>Bulgan</i> | | 2375 | | 463 | | 65391 |
| Bayankhorgor | 76300 | | 21500 | | 2237800 | |
| <i>Bogd</i> | | 2924 | | 614 | | 139836 |
| <i>Baatsagaan</i> | | 3238 | | 699 | | 168321 |
| <i>Galuut</i> | | 1870 | | 726 | | 158809 |
| Govi-Altai | 52600 | | 13900 | | 1613300 | |
| <i>Delger</i> | | 3000 | | 385 | | 135845 |
| <i>Khaliun</i> | | 2404 | | 661 | | 170730 |
| <i>Chandmani</i> | | 2158 | | 463 | | 94720 |
| Zavkhan | 63700 | | 16800 | | 2006100 | |
| <i>Zavkhanmandal</i> | | 1063 | | 187 | | 66176 |
| <i>Erdenekhairkhan</i> | | 1532 | | 239 | | 11692 |
| <i>Tsagaankhairkhan</i> | | 1356 | | 289 | | 43886 |
| Khovsul | 115300 | | 31900 | | 3315500 | |
| <i>Shine-Ider</i> | | 3433 | | 583 | | 151230 |
| <i>Tunel</i> | | 3568 | | 651 | | 144265 |
| <i>Tosontsengel</i> | | 4191 | | 746 | | 216843 |
| TOTAL | 391800 | 40060 | 112100 | 8110 | 121157000 | 2636072 |

Project Components

6. The project will consist of three main components: (i) Linking Herders to Markets, (ii) Raising Livestock Productivity and Quality, and (iii) Project Management. These components will address a set of closely linked constraints in marketing, pricing relationships, animal health, animal breeding and animal nutrition to be treated in an integrated manner. Except for the health related activities which will be aimag-wide, to ensure the current declaration of disease-free status is maintained, all project activities will be directed to multipurpose herder cooperatives within the selected soums. These cooperatives will be provided with advisory (extension) services in the areas of health, nutrition – including fodder production, and improved breeds to improve the condition of animals in order to increase milk and meat as well as fiber production

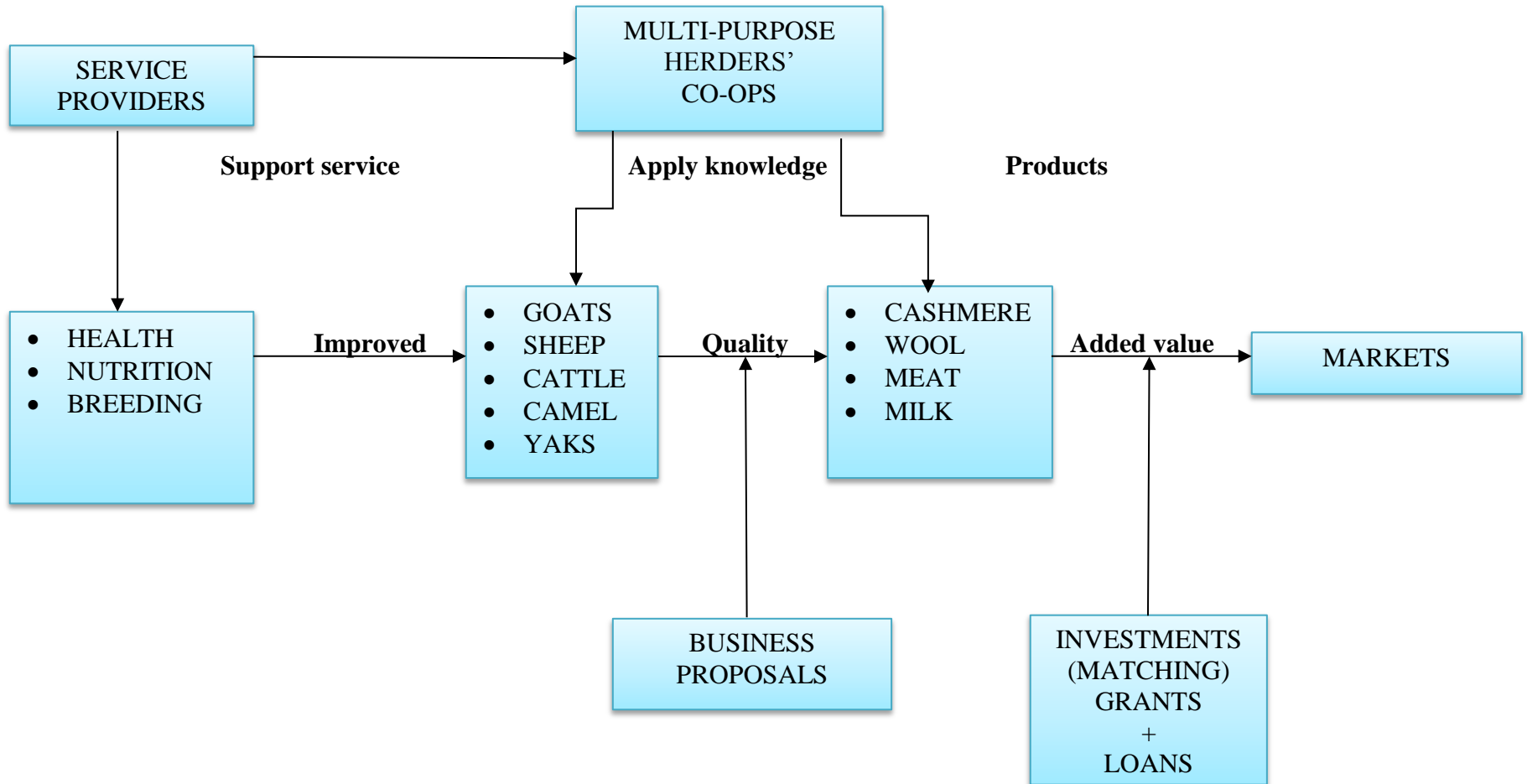
as well as their quality. To ensure traceability of products from the cooperatives, the herders will tag all their animals as per the government's guidelines on animal identification and follow them through to the end product.

7. Herders in Mongolia operate a multi-purpose enterprise by producing milk, meat and fiber. Therefore the project will encourage the formation of multi-purpose cooperatives (meat, fiber and milk) to build on the local knowledge to accommodate the risk-averse nature of herders. The advisory services will be delivered by service providers selected through a competitive process for each aimag, and their responsibility will include the formation of the cooperatives, provision of extension services, development of business plans that should be technically and financially feasible, and linking cooperatives to markets, locally and/or internationally. The business plan will initially be approved by the soum coordinating committee, the project steering committee, and finally by the World Bank, to be funded through the matching grant scheme (Detailed procedures are contained in the MGM). The objective of the business plan is to ensure that value addition is a viable option and the enterprise will be run along sound business principles and will lead to additional income accruing to the herders. In addition, the private provider will provide support to female headed households, families with below national average animal heads and the unemployed to grow vegetables as a means of diversifying their sources of nutrition and income (a schematic representation of the design is presented below).

8. The project will support the preparation of guidelines for value chains development for cashmere, wool, meat and milk under the FAO/TA component. The FAO/TA component will also prepare extension training materials on selected issues such as animal husbandry, markets, product quality, feasibility studies and business plan development, in conjunction with the relevant departments of MoIA , to be used in by the service providers in the training of extension agents and veterinarians, herders and NGOs involved in the project.

9. The project will encourage commercial buyers/processors to make investments and partner with cooperatives. This could be through shareholding arrangements with the cooperatives and/or firm contractual arrangements for the supply and purchase of products. To encourage private participation, the business plans will be discussed at workshops where private processors interested in in partnerships will participate and share their views.

Schematic Representation of Project Design



Component 1 – Linking Herders’ to Markets (US\$ 6.00 million grant)

10. This component will support the development of value chains and market linkages for meat and fiber for yaks, sheep, cattle, goats and camels.

Sub-Component 1a: Meat and Fiber Market Development (US\$ 4.00 million grant)

11. This subcomponent will support the establishment of Productive Partnerships (PPs) along selected value chains for meat, cashmere and wool. 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, for which lessons learned from other projects in Mongolia are critical to success. In Mongolia, matching grants have also been used successfully to support such investments. The project will hire experienced private agencies and or NGOs as service providers to support the identification, selection and facilitation of PPs. This support will include training in techniques of applying and managing commercial credit as well as facilitating access to credit sources.

12. The service providers will link herders and organized herder groups and/or cooperatives with buyers, and meat and fiber processors. It will, for example, assist a cashmere processor in Ulaanbaatar to develop a supply contract with a herders’ cashmere cooperative within the project area to guarantee a certain quantity and quality of cashmere each year. Once the PPs are established and based on the business plan, the project will provide matching grants for the specified approved investment activities (at herder level only) and technical assistance for management support, market studies, production protocols, training and product development (applied research). The investments with the herder groups would improve basic collection, handling, cleaning, sorting, packaging, storage and similar activities. All components of the value chain are eligible for the grants including market linkages, product quality, post-harvest quality, international standards, processing, innovation, packaging and branding.

13. A communication and outreach campaign will promote the program and, once potential partners are identified, the project will provide them with technical assistance to enable them to identify profitable business opportunities, including preparation of business proposals. Key activities will include matchmaking services for PPs and training in business management. Attention will be paid to proactively identifying women’s groups (formal and informal) during the beneficiary identification process. Additionally, needs assessments and training programs will identify special requirements for training or technical support needed by women’s groups.

Sub-Component 1b: Dairy Market Development (US\$ 1.0 million grant)

14. Under this subcomponent, the project will support investments in pilot milk collection schemes and small-scale dairy processing plants and training to link suppliers with buyers for local consumption. 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 the herder cooperatives. The investment package will include all the equipment, tools, facilities, power, water and hygiene systems necessary to ensure safe food production as well as equipment for collection and transportation. 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.

15. Various sizes of dairy processing investments have been identified. These range from a micro-unit processing 100 liters per day (lpd), that would serve five households producing 20 liters each. This unit provides for basic collection in milk cans, straining, pasteurizing, cream separation, butter churning and refrigeration. The second scale would process 400 lpd from 10 households. A 500 liters cooling tank, cooling room and the purchase of a truck is added to the basic investment while other equipment is scaled up in capacity. The third scale of unit available for the *soum* level would process 1000 lpd from 25 households. Additional investments at this scale include a standardized building, underground water source and basic office and laboratory furnishing. The actual scale of processing units supported will depend on the unique needs, interests and capacities of the applicants. Investments will be approved based on the submission of technical and financially feasible business plans.

Component 1c Pilot Horticulture production (US\$ 1.0 million grant)

16. This subcomponent will support income diversification through horticulture production. The component will contribute to increased household incomes as well as improve the dietary status of the local population. The investments will (i) support poor families in the establishment of profitable and sustainable small scale horticulture businesses, (ii) support established growers to develop greenhouse and fruit production and (iii) establish small-scale processing at the *soum* level to provide opportunity for local value-added production. Local capacity in production, business management and marketing will be developed through a participatory training program. Financial and environmental sustainability will be enhanced through an applied research program on horticulture production.

17. The sub-component will target poor families to establish basic horticulture production, through the provision of grants to unemployed family groups and herders with below national average animal heads to establish basic vegetable production plots. Beneficiary selection will be done in collaboration with the *soum* social welfare office and will target female-headed households as much as possible. Key investments will include fencing, wells, irrigation, storage, equipment and first year inputs as well as a small sorting and bagging facility.

18. There are several important programs and projects in horticultural development that could provide beneficial links. Donor projects and NGO programs that could be sources of training and technical support include ADRA, World Vision and the SDC Potato Project. The national Green Revolution program has AgroParks in all aimags and various *soums* across the country and could be an important linkage for oversight, logistical support and demonstration sites. MSUA and PSARTI have ongoing research and training programs on horticulture production and will be a major source of information as well as the conduct of on-farm research to enhance horticultural production.. The NAEC, through the VABUs has an extension officer in each *soum* who will provide oversight monitoring and support to the service providers..

Component 2 – Raising Livestock Productivity and Quality (US 4.0 million grant)

19. This component will focus on improving productivity of the five traditional species (sheep, goat, horse, cattle/yak, camel) within the semi-nomadic production system through the implementation of three interrelated subcomponents: animal health, animal breeding and animal nutrition. More sedentary, intensified production would involve the emerging commercial dairy sector and the nascent feedlot sector. These activities and investments will be strongly linked to the market-driven investments in Component 1. Baseline studies and needs assessments will be gender disaggregated. This will allow the program to develop training and services that respond

to actual gender and/or age-based division of labor and technical needs in various aspects of animal production with women performing most young animal care and milking.

Subcomponent 2a: Animal Health (US\$ 1.5 million grant)

20. This subcomponent 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. This will be accomplished through : (i) supporting and implementing national level programs for FMD and brucellosis control in all soums of the five project aimags, working in collaboration with other programs and projects active in this area; and (ii) strengthening grassroots veterinary services and herd health management through capacity building and other relevant interventions.

21. Specific activities will 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 brucellosis control programs; and (v) upgrading animal health services and disease surveillance. The project will finance investments in : (i) animal handling at the soum level and veterinary equipment; (ii) border inspection post and buffer-zone check points; (iii) cold chain equipment; and (iv) upgrading animal health service delivery and disease surveillance by filling gaps in the vaccine cold chain, upgrading aimag laboratories, providing corrals and race for animal handling, installing sheep dips and assessing the distribution of veterinary personnel at bagh level and training as required.

22. Training requirements will be based on identified needs and are anticipated in the areas of: i) epidemiology; ii) clinical skills; iii) training of trainers; iv) disease surveillance; v) laboratory practice, vi) group animation; and, vii) product inspection and certification. It will be necessary to harmonize with training activities in other projects such as the SDC funded Animal Health Project. New topics that will be developed in this project mainly relate to buffer zones and disease-free zones (e.g. public awareness, training for border control points, enhanced disease surveillance). Training will be coordinated in close cooperation between project management and the State Veterinary Agency to ensure smooth coordination with programs already being carried out by the Government and NGOs.

Subcomponent 2b: Genetic Improvement and Breeding Management (US\$ 1.5 million grant)

23. This sub-component will support both genetic improvement and breeding management through investments in sheep and goats, dairy cattle and beef cattle production. This is consistent with the national law on genetic resources and the objectives for livestock genetics indicated in the NLP. Major activities include: Sheep and cashmere goat genetic improvement through the establishment of 5 nucleus herds for cashmere goats (four) and local sheep (1). The herds will be supported by a genetic selection program monitoring economically important traits. 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

24. **Dairy improvement:** AI capacity will be strengthened by equipping AI technicians with tool kits and frozen, improved semen from suitable dual-purpose cattle breeds to 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. AI technicians will receive training in skills upgrading.

25. **Beef breed improvement:** Herders will be supplied with improved beef bulls. These will be obtained through the Dairy Herd Improvement Program (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. Beef breed improvement will target improved carcass size and growth rates, economic traits for which packers are beginning to offer price differentiation. This will be done in partnership with the private sector.

26. These programs will be designed to improve economic traits demanded by end-users while remaining sustainable within the Mongolia climatic and management environment. The genetic improvement program will support the preservation of indigenous Mongolian breeds. The subcomponent 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.

27. **Training:** Training will be provided to soum livestock officers in reproductive management and genetic improvement of sheep and goats, including performance recording and general animal husbandry, and feeding and management. Herders will receive training in general animal husbandry, feeding and management and the benefits of genetic improvement, flock and reproductive, and for beef producers, calf rearing and cattle fattening/finishing. In addition, dairy farmers will be trained in on-farm food safety related to safe milk production. AI technicians will be trained in reproduction management, animal health, heat detection, breeding improvement, nutrition, record keeping and technical skills related to AI.

28. **Linkages:** The genetic improvement program will require linkages with the following programs: the Genebank (sheep and goat genetic analysis), RIAH (cashmere and wool sample testing) and the DHIP (dairy improvement AI program, sourcing of beef bulls) and the Dairy Breeder Association (transfer of surplus bulls to the beef herd). The local VABU animal breeding technician will be involved in management and/or oversight of the nucleus herd and male flock program. Well established herder groups or PUGs will be selected to own and manage the male flock and multiplier herds.

Subcomponent 2c: Animal Nutrition (US\$ 1.0million grant)

29. This sub-component will improve livestock productivity through investments in livestock feed production, processing and feeding programs. These activities will be financed through a matching grant mechanism. Eligibility for financing will require a detailed business plan, which clearly shows technical and financial feasibility. The plan would also need to identify the training requirements for the herder groups to successfully manage the new technologies and management approaches.

30. Pasture and forage development will be linked to a land tenure scheme currently piloted by other agencies. The plot size will be such that it will optimize the investment into equipment and fencing and builds significantly more production capacity. The project will support cooperative livestock grow lots (feedlots) or groups of dairy farmers or herders wishing to secure individual winter supplies. Investments would include fencing, irrigation, equipment, storage and first year inputs. Improved wind fencing to protect livestock and improve feed efficiency in winter could be included in this investment. Crops would include improved perennial forages such as brome grass and/or alfalfa, depending on local conditions as well as cereals such as barley and oats which could be grown together and then either baled as green feed or made into silage. Financial models have been run based on the scenario of livestock

producers feeding weaned beef calves over their first winter to maintain body condition; and pasturing them over the second summer, and selling them the following fall at 15 – 18 months of age. Other possibilities include feeding one or two year old animals through the winter in order to sell in the late winter or early spring when Mongolia's meat prices traditionally peak.

31. Establishment of silvo-pastoralism plots will be encouraged. These plots, on 15 hectares of land, make maximum use of the land and water resources. Arable land is subdivided between livestock feeds, potatoes and vegetables. This provides for both animal and human nutrition while surplus potato and vegetable production can provide immediate cash income. The production of three different types of crops allows for crop rotation to prevent plant diseases. Economic windbreaks of small fruits and berries provide supplemental income after three to five years when the bushes are well established. Improved wind fencing to protect livestock and improve feed efficiency in winter could be included in this investment. Ten families would be involved in each plot

32. Micro-scale fodder processing will be supported at the soum-level . Approximately 20 difference fodder products have been demonstrated by RIAH under the SLP using this small scale technology. The investment will include the grinding and mixing machine and a 220 volt solar power generator capable of running the equipment. These units have the capacity to make micro-nutrient blocks.

33. The improved nutritional levels will improve reproductive rates and improved weight gains and contribute directly to improving household incomes and the proportion of income earned from agricultural production. Micro-level investments have not been included because these are available nationwide through the SLP pasture risk management program.

34. **Training:** The program 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. Trainees will be introduced to topics such as livestock nutrition and the link to productivity, production of feeds, feeding programs for various types of livestock and for different needs including maintenance, growth, reproduction and productivity.

35. **Linkages:** Small-scale investments provided through the SLP program are not included in this sub-component. MSUA/PSARTI and SDC have all conducted variety trials on forages. The MoIA National Fodder Program is establishing forage multiplier farms which will be the source of forage seed. RIAH has conducted forage and fodder production research and training under the SLP and will be used as a resource in this program.

Component 3 - Project Management (US\$ 1.0 million grant)

36. The project will finance coordination, monitoring and fiduciary functions of the Projects Implementation Unit (PIU) in the MoIA. 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. The donor coordination activities will involve semi-annual reviews of all donor funded programs on value chains in the livestock sector, discuss and agree on common approaches, and provide policy guidance to MoIA.

ANNEX 3: IMPLEMENTATION ARRANGEMENTS

MONGOLIA: Livestock and Agricultural Marketing Project

Project Institutional and Implementation Arrangements

1. The project's implementation arrangements shall be guided by the following principles
2. The Guiding principles set out below for the institutional framework for the project are to facilitate partnerships between agribusiness and producers and incorporate local governor offices as crucial partners of the implementation process. The implementation structure of the project shall be based on three principles: (i) responsibilities of public sector will be in terms of orientation and coordination of the project; (ii) execution of project activities will be decentralized to the soums; and (iii) ample scope for participation by relevant stakeholders will be structured through a clear distribution of roles and responsibilities that takes into account the competencies and capacities of each party. To ensure transparency and accountability, an operational procedures manual shall be developed to guide project implementation. The manual will clearly define eligibility criteria for identifying beneficiaries and allocating resources, including efficient flow of funds and adequate supervision and monitoring arrangements. The MoIA will have responsibility for implementing the project and have oversight over the overall project implementation.
3. **Project Steering Committee.** The project shall be guided by a steering committee that will consist of representatives from the MoF, MoED, National Association of Mongolian Agricultural Cooperatives and its member organizations, Ministry of Social Welfare, one Soum Governor's representing the 3 soums in each aimag and the SME department of the Ministry of Labor. The PSC will be chaired by MOIA, meet semi-annually and hold ad hoc meetings as required. Specific responsibilities of the PSC are to: (i) deliberate and discuss policy issues and provide policy guidance; (ii) coordinate activities of government ministries, departments and stakeholders involved in project implementation; (iii) review and approve annual work plans, budget and annual reports; (iv) ensure the appropriate use of grants; and (iv) monitor and assess progress towards the achievement of project development objectives, including taking corrective actions to ensure smooth implementation of project activities
4. **Project Implementation Unit.** A project implementation unit (PIU), to be housed in MoIA, will be responsible for day-to-day management, planning, coordination, monitoring and evaluation of project activities. The PIU will be staffed with (i) a Project Director/Coordinator, Project Accountant, Procurement Specialist M&E Specialist, Grants Manager, a Horticulture Specialist, a Livestock Specialist/Husbandry/Nutrition, a Social/Gender Specialist and a communication specialist.
5. Specifically, the PIU will be responsible for (i) planning and managing the administrative, financial, and technical activities of the project, including preparation of work plans; (ii) managing the project's financial resources by ensuring that disbursements are on schedule; (iii) ensuring that all procurement activities are undertaken in accordance with the Bank's procurement guidelines and procedures; (iv) organizing the conduction of an annual

independent audit of project resources and activities; (v) carrying out significant communication activities across the country to create awareness of project objectives and outcomes; (vi) conducting technical training of project beneficiaries; (vii) hiring of technical consultants for the execution of specific project activities

6. **Soum level:** The MoIA coordinator (head of MOIA at the Soum) will assume responsibility as Soum Coordinator (SC) for the coordination, monitoring and reporting on soum activities. The SC will work under the overall guidance of the Soum Steering Committee (SSC) chaired by the Soum Governor. Other members will include the soum breeder and veterinarian, the social welfare officer, the service provider, a member of the soum khural, a herder, and an aimag Governor representative. *Soum* government will be involved in beneficiary selection and land provision, coordination of activities and allocation of local resources. The newly established VABUs will be involved in various project aspects. The project provides an important capacity building opportunity for these units. Private businesses, producer groups and veterinarians will all be involved at the soum level. Where NGOs have an active presence in the soum, coordination will be important and service delivery may be contracted. With the passage of the Integrated Budget Law in 2012, *soum* governments will assume more fiscal resources and responsibilities and are expected to contribute 2 percent to the capital investments under the matching grants. The project will work with the various *soum* governments to strengthen strategic planning and donor coordination, as it relates to the successful implementation of this project.

7. *Producer groups and commodity associations:* These groups will play a central role in the PPs and in the local productivity enhancement and diversification investments. National associations such as the Dairy Breeder Association will play a role in liaising with producers for the AI and beef enhancement programs. Other associations, such as the National Cashmere Association, the Forage Growers Association and the Seabuckthorn Association may be involved in the liaison and the delivery of training.

8. **Partnerships:** The FAO with financing through the GAFSP is implementing a complementary project that will provide supplemental technical assistance and support related activities that will contribute to the same PDO. These complementary activities will be initiated in early 2012 and run through the life of the project. The FAO project is expected to prepare the project implementation manual as well as manuals and guidelines to guide the investment proposal contained in this PAD (see attached Table for a summary of activities by FAO).

9. The FAO managed project also includes a detailed monitoring plan as well as the preparation of the Monitoring and Evaluation system. In this regard, additional support will be provided by the Development Impact and Evaluation initiative (DIME) which will help to organize and finance the baseline study and to design and implement impact evaluation. The project would work with the Monitoring Department of the MoIA in this regard. The impact evaluation could involve a study of the causal effect of the LAMP as a whole on the PDO Level Results indicators as well as the impacts of various component-specific interventions. The latter would be done in close cooperation with MoIA officials and other partners and

would be done for the sake of identifying ways in which the different components could be improved on a continual basis, as the project progresses.

Guidelines to be produced under the FAO-TA
(source: FAO project document)

| | |
|--|---|
| 1. Enhanced organizational and human capacities in conducting animal health improvement and surveillance activities. | <ul style="list-style-type: none"> • Strategy for meat export • Strategy for FMD and Brucellosis free zone |
| 2.1 Preparation of value-chains development strategy and supporting modality. | <ul style="list-style-type: none"> • Guidelines for PPs and value-chain supporting |
| 2.2 Preparation of guidelines for supporting modality. | <ul style="list-style-type: none"> • Guidelines for horticulture and dairy development supporting modality |
| 3.1 Preparation of guidelines for supporting modality and compilation of animal health baseline data. | <ul style="list-style-type: none"> • Guidelines for supporting modality Four baseline studies are prepared: (a) livestock population; (b) veterinary manpower; (c) cold chain for vaccination and sample collection; (d) current capacity of the five aimag laboratories. • Simple assessment reports: (a) training needs on the knowledge and skills of veterinarians and para-vet-professionals; (b) soum development master plans; and (c) border inspection points. |
| 3.2 Animal health and meat export strategy and supporting planning. | <ul style="list-style-type: none"> • A strategy for meat trade is prepared. |
| 3.3 Animal health improvement planning. | <ul style="list-style-type: none"> • Investment plan for the FMD-free zone. • Investment plans animal health services and disease surveillance. |
| 4.1 Development of guidelines and procedure for sheep and cashmere goat genetic improvement. | <ul style="list-style-type: none"> • Guidelines for sheep and cashmere goat genetic improvement support is prepared and revised. |
| 4.2 Dairy Improvement through AI. | <ul style="list-style-type: none"> • Guidelines for AI service modality and procedures are prepared and revised. |
| 4.3 Beef breed improvement. | <ul style="list-style-type: none"> • Guidelines for beef breed improvement service modality and procedures are prepared and revised; |
| 5. Preparation of fodder production supporting modality. | <ul style="list-style-type: none"> • Guidelines for fodder production support modality are prepared and revised. |
| 6. Preparation of Project Implementation Manual. | <ul style="list-style-type: none"> • PIM is prepared and revised. |
| 7. Preparation of monitoring plans. | <ul style="list-style-type: none"> • A detailed monitoring plan is prepared. • The design of the M&E is prepared. |

Financial Management, Disbursements and Procurement

Financial Management

10. Overall, the residual financial management risk for the project after mitigating measure is assessed as Substantial. Although, MoIA has implemented some projects with funding from different donors, including the Asian Development Bank, IFAD, and UNDP, it is new to Bank operations. To address the lack of knowledge in managing Bank-financed projects, the Bank will provide related guidelines and financial management/disbursement training to project financial staff. In addition, the Financial Management Manual (FMM) which is part of the Project Implementation Manual (referred to in the Grant Agreement) will provide guidance on the management of the project finances. A Designated Account (DA) will be set up with a commercial Bank acceptable to the World Bank and be jointly managed by MOF and MoIA

11. Funding sources for the project include the Bank grant and counterpart funds. The Bank grant will be signed between the Bank and the Government of Mongolia. The Bank grant proceeds will flow from the Bank into the project DA to be jointly managed by MOF and MoIA and then be disbursed to contractors/suppliers directly for project main expenditures or through the PIU's operational accounts (OA) for incremental operating costs.

12. **Weaknesses and Action Plan** The following is an action plan to address Project FM weaknesses noted during the assessment;

| Significant weaknesses | Actions | Responsible Person | Completion Date |
|--|---|--|---------------------------------|
| Implementing agency does not have experience with Bank-financed project. | - A FMM describing the detailed financial management procedures has been substantially prepared; | MoIA | at 3 months after effectiveness |
| | - Content and format of the Interim Financial reports (IFRs) will be reviewed and agreed by the Bank; | MoIA | Completed during negotiations |
| | - Recruiting qualified financial management specialist; and - Providing financial management/disbursement training to the staff; | MoIA and Bank team | 3 months after effectiveness |
| Lack of timely and sufficient counterpart funds | - Local government counterpart funds to be confirmed in the annual budget; - Assurance of contributions of respective percentage of beneficiary through collecting contributions in bank account of cooperative; | Local Government and beneficiary herders | During project implementation |
| Lack of experience or project implementation at local level | - Close monitoring and guidance for project implementations at local level; | PIU | During project implementation |

13. **Audit Arrangements** : The Bank requires that project financial statements be audited in accordance with standards acceptable to the Bank. In-line with other Bank financed projects in Mongolia, the GOM will appoint an independent external auditor, acceptable to the Bank, to

conduct annual audits of the project's accounts in accordance with International Standards on Auditing, under terms of reference satisfactory to the Bank. The audit will be financed from the project proceeds. The auditor will: (a) express an opinion on the annual financial statements; (b) determine whether the DA has been correctly accounted for and used in accordance with the financing and trust fund agreements; and (c) determine the adequacy of supporting documents and controls surrounding the use of Statements of Expenditure (SOEs) as a basis for disbursement. The auditors will also furnish a separate Management Letter, which will: (a) identify significant weaknesses in accounting and internal control as well as asset management; (b) report on the degree of compliance of financial covenants of the financing agreement and project agreement; and (c) communicate other matters that have come to the attention of the auditors which might have a significant impact on the implementation of the Project.

14. The annual audit report of project financial statements will be due to the Bank within six months after the end of each calendar year. This requirement is stipulated in the Grant Agreement. The responsible agency and timing are summarized as follows:

| Audit Reports | Submitted by | Date Due |
|------------------------------|---------------------|-------------------------------|
| Project Financial Statements | MoIA | June 30 of each calendar year |

15. **Risk Assessment and Mitigation:** The following risks with corresponding mitigating measures have been identified during the assessment:

| Risk | Risk Rating | Risk Mitigating Measures Incorporated into Project Design | Risk Rating After Mitigating Measures | Conditions of Negotiation and Signing Legal Document |
|----------------------|--------------------|--|--|---|
| Inherent Risk | | | | |
| Country Level | High | Ring-fenced arrangements for the project will be applied until the Treasury Single Account (TSA) System within Government Financial Management Information System is implemented. Once the TSA is in place, financial management arrangements for the project will be discussed and revised accordingly. | Substantial | |
| Entity Level | High | The project's implementing entity, MoIA, has never implemented Bank funded projects, although it has previous experience with other donors financed projects. The MoIA, through a steering committee, will be responsible for overall of the project. | Substantial | |
| Project Level | High | A PIU will be established and located within the MoIA to effectively carry out implementation and daily administrative activities. A project staff will be appointed at each piloting soum. Soum project staff will be responsible for coordinating the project activities locally. | Substantial | |

| Risk | Risk Rating | Risk Mitigating Measures Incorporated into Project Design | Risk Rating After Mitigating Measures | Conditions of Negotiation and Signing Legal Document |
|---------------------|--------------------|--|--|---|
| | | <p>A capable financial management specialist will be recruited with proper qualifications and experience. Relevant financial management training will be provided to the newly recruited financial management specialist.</p> <p>A detailed FMM will specify adequate financial management and disbursement procedures for successful implementation of the project from financial management perspective.</p> | | |
| Control Risk | | | | |
| Budgeting | High | Project annual plan with timetable by quarter will be prepared by the PIU and approved by the Project Steering Committee. The PIU will conduct variance analysis regularly to ensure project activities can be implemented as planned. | Substantial | |
| Accounting | Substantial | Appropriate accounting system will be set up for the project operations. | Moderate | |
| Internal Controls | High | <p>The internal control procedures will be specifically designed for the project and documented in the project FMM, which will include but not be limited to the following:</p> <ul style="list-style-type: none"> - Proper authorization and approval procedures for payments; - Appropriate segregation of duties and job description for each PIU staff; - Bank's no objection for significant project activities; - Regular bank reconciliation and periodic cash count; - Suitable filing documentation procedures for relevant documents; | Substantial | |
| Funds Flow | Substantial | The flow of funds for the project is straightforward which facilitates implementation. Approval procedures for payments and withdrawal applications will be documented in the FMM to make funds delivery more efficient. | Moderate | |
| Financial Reporting | Substantial | <p>The project will adopt financial reports with proper format and content agreed by the Bank.</p> <p>Quarterly IFRs will be prepared and submitted to the Bank for review on a</p> | Moderate | |

| Risk | Risk Rating | Risk Mitigating Measures Incorporated into Project Design | Risk Rating After Mitigating Measures | Conditions of Negotiation and Signing Legal Document |
|-----------------|--------------------|--|--|---|
| | | regular basis, as specified in the legal agreements. | | |
| Auditing | Substantial | An external independent auditing firm will be appointed by Government and accepted by the Bank with proper terms of reference. | Moderate | |
| Overall: | High | | Substantial | |

16. Therefore, the overall FM risk rating assigned to this project is *Substantial* after mitigating measures. The Bank’s Financial Management staff will monitor the effectiveness of the mitigation measures and project FM risk during project implementation.

Disbursement

17. Four disbursement methods are all available for the project, including advance, reimbursement, direct payment, and special commitment. Supporting documents required for Bank disbursements under different disbursement methods are documented in the Disbursement Letter issued by the Bank.

18. The MOF and MoIA will jointly maintain and manage a segregated US\$ DA at a commercial bank, on terms and conditions satisfactory to the Bank, including appropriate protection against set off, seizure and attachments. The ceiling of the DA will be specified in the Disbursement Letter.

19. Further Advances will be made from the DA to an operating account (OA) managed by the PMU. The OA will be maintained in Mongolian Tugrug and the ceiling will be stipulated in Disbursement Letter. The OA will be used to finance small expenditures relating to the PMU incremental operating costs only. Small expenses will include, *inter alia*, utilities, communications and vehicle operating costs and repairs. OA payments will be approved by the Project Director. Uses of the advance in OA will be reported and reconciled with the DA on a monthly basis. The outstanding balance of the OAs will be reported as separate items in the DA reconciliation statement

20. The project proceeds will be disbursed against eligible expenditures (inclusive of taxes) according to the following table:

| Category | Amount of the Grant Allocated (expressed in USD) | Percentage of Expenditures to be Financed (inclusive of Taxes) |
|--|---|---|
| (1) Goods, Works, non-consulting services, and consultant services, training and incremental operating | 6,610,000 | 100 % |

| | | |
|---------------------|------------|-------|
| costs | | |
| (2) Sub-Grants | 3,520,000 | 100 % |
| (3) Unallocated | 870000 | |
| TOTAL AMOUNT | 11,000,000 | |

21. **Matching Grant Fund:** The objective of the MGF is to create PPs along selected value-chains (e.g. meat, milk and fiber) by providing funds for capital investments within the herder groups to improve basic collection, handling, cleaning, sorting, packaging, storage and similar activities.

22. The grants would be provided to herder cooperatives with at least 100 members that satisfy specific project criteria specified in the MGM. A cooperative/group should have the ability to contribute at least 10 percent of the total sub project cost. The sub-project grant ceiling is US\$150,000 irrespective of the size of the project. The grant sizes could be well below this ceiling. Disbursement of the grant funds will be made against the eligible expenditures incurred by the recipient (cooperative/group) in accordance with the matching grant agreement.

23. The eligibility criteria and procedures for the matching grant are provided in the Matching Grants Manual. Service providers engaged by the Project will support the herder cooperatives to prepare a business plan to be screened by the soum level Steering Committee and the PIU and approved by the Project Steering Committee. The Bank will approve the business plan on a “no objection” basis.

24. Upon issuance of approvals, the PIU will tender the capital equipment on behalf of the cooperatives in accordance with procurement guidelines. The sub-project will be supervised by the PIU through the Service Provider recruited and appointed for this task.

25. **Budgeting:** The PIU will prepare a project annual plan with the timetable by quarter. The annual plan will be discussed and approved by the Project Steering Committee and thereafter sent to the Bank approval.

26. The PIU will conduct regular variance analyses and report the results in the IFRs during project implementation to explain reasons for any differences between planned (budgeted) and actual expenditures, and necessary actions to be taken to ensure that the project can be implemented as planned.

27. **Funds Flow:** The grant proceeds will flow from the Bank to the DA and be disbursed against eligible project expenditures including goods, consultant services, training, and matching grants with appropriate approvals from the PIU Director and the authorized representatives from MOF.

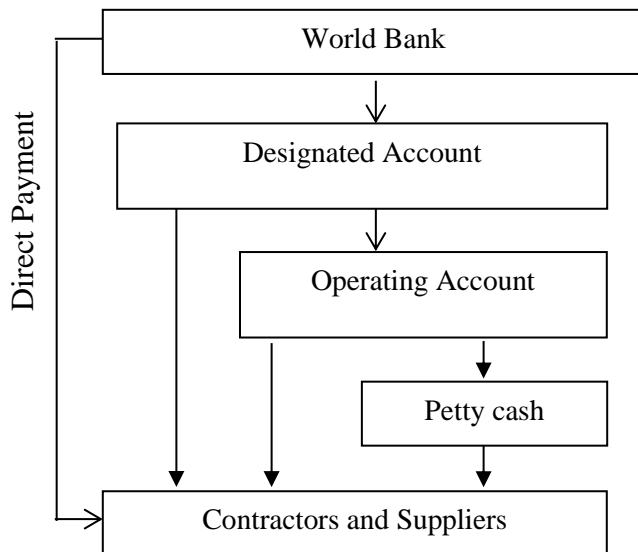
28. Advances will be made from the DA to an OA at a commercial bank acceptable to the Bank and managed by the PIU. The OA will be maintained in Mongolian Tugrug and the ceiling will be stipulated in Disbursement Letter.

29. The OA will be used to finance small expenditures relating to the PIU incremental operating costs only. Small expenses will include, *inter alia*, utilities, communications and vehicle operating costs and repairs. Payments from the OA will be approved by the PIU Director.

30. Use of DA advances will be reported and reconciled with the DA on a monthly basis. The outstanding balance of the OA will be reported as a separate item in the DA reconciliation statement.

31. Bank-financed projects may be transferred into the Treasury single account system within the Government Financial Management Information System. If/when such arrangement is confirmed, the DA arrangements described in the Disbursement Letter will be revised accordingly.

32. The funds flow of the project will be as follows:



33. The PIU will be directly responsible for the management, maintenance, reconciliations of the DA and OA transactions and will prepare withdrawal applications. The withdrawal applications submitted to the Bank will be signed off by the PIU Director and the authorized representatives from the MOF.

34. These documents should be made available for review by auditors and Bank supervision missions. If the auditors or the Bank find any disbursements that are not justified by supporting documentation or made for ineligible expenditures, the Bank may take necessary actions in line with related policies.

35. **Accounting and Financial Reporting:** Separate administration, accounting, and reporting will be set up for this project in accordance with Bank requirements, which obligates Borrowers to prepare financial statements in accordance with acceptable accounting standards.

The Bank does not mandate a format for annual financial statements. However, if a Borrower prepares financial statements on a modified cash basis, the Bank encourages the adoption of formats laid out in the International Public Sector Accounting Standards (IPSAS) and Financial Reporting under the Modified Cash Basis of Accounting, in order to monitor and fully reflect any non-cash transactions and payables. The PIU will adopt the cash basis of accounting for preparing financial statements. Consistent with IPSAS requirements, the financial statements will include the following:

- Balance Sheet of the Project;
- Statement of Sources and Uses of Funds by Project Components;
- Statement of Implementation of Project Proceeds;
- Statement of Designated Account ; and
- Notes to the Financial Statements.

36. The PIU will prepare consolidated IFRs in accordance with agreed formats as part of progress report. These reports will be used to monitor and supervise project implementation. The consolidated IFRs will be submitted to the Bank within 45 days after the end of each quarter.

37. The task team will monitor the accounting process, including the adequacy of the financial management system, especially during the initial stage to ensure complete and accurate financial information are provided in a timely manner

38. **Internal Control:** To mitigate risks in the area of internal control, regular oversight by the Project Steering Committee, periodic Bank supervision, and annual external audits will serve as mechanisms to ensure that project financial management system is functioning appropriately. In addition, proper authorization for payment requests, segregation of duties, and other internal control mechanisms will be defined and included in the FMM. The procedures in the FMM should be fully and adequately implemented by all the parties involved.

39. **Supervision Plan:** The Bank's financial management team will conduct a review at the MoIA prior to effectiveness to make sure the necessary conditions related to the financial management system are in place.

40. The supervision strategy during project implementation is based on its FM risk rating, which will be regularly evaluated by the Bank Team's Financial Management Specialist and in consultation with relevant task team leader.

Procurement

41. **Findings of Procurement Assessment.** The PIU in MoIA will be responsible for the procurement of various consulting services and technical assistance contracts under the project. Procurement of capital equipment under the grants scheme will be carried out by the PIU on behalf of the beneficiaries. The key procurement risk identified from the procurement capacity and risk assessment of MoIA is that MoIA is not familiar with the Bank's procurement policies and procedures since this is the first Bank investment operation to be implemented by MAA. The risk is complicated by the uncertainty regarding the role of the newly created Central

Procurement Agency (CPA) under the office of the Deputy Prime Minister, if any, in processing procurement under projects financed by IFIs in Mongolia. The large number of parties and transactions involved, the small value and multiplicity of contracts and the scattered location of the subprojects under the grants scheme together with the likelihood that the beneficiaries lack the necessary capacity are risk factors that contribute to the procurement risk rating for the project.

42. The limited number of staff in MoIA and the large number of donor projects underway together with the expected large number of beneficiary groups under the grants scheme under this project may mean that capacity of MoIA is overextended. This could lead to the weakening of rigor in financial and procurement management. The procurement risk rating for the project is therefore assessed as High. In order to address the identified risks, mitigation measures including the following were agreed; (i) MoIA to appoint/hire a Procurement Officer with qualifications acceptable to the Bank to start work in the PIU no later than negotiations; (ii) MoIA to establish and document in the Project Implementation Manual clear responsibilities, procedures and internal control procedures for procurement and contract management under the project; (iii) The Bank to provide accelerated and periodic procurement training to key staff of MoIA; (iv) a user friendly Project Implementation Manual (POM) which will provide guidance to beneficiaries on the details of the procurement procedures under the Grant scheme is under preparation and to be finalized by negotiations; (v) MoIA to hire consultants including, NGOs, universities and individuals to provide technical assistance and implementation support to beneficiary groups; (vi) MoIA to arrange for procurement training (using the PIM) for the facilitators and consultants who will provide implementation support to beneficiaries of the grant; (vii) MoIA to prepare and submit to the Bank quarterly procurement and contract progress reports; and (ix) MoIA with assistance of the MOF Inspectorate to hire independent consultants to carry out periodic technical verification and annual procurement audits of activities under the grants scheme.

43. ***Applicable Guidelines:*** Procurement will be carried out in accordance with the “Guidelines: Procurement of Goods, Works and Non-Consulting Services under I BRD Loans And IDA Credits & Grants by World Bank Borrowers” dated January 2011; and “Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers” dated January 2011; and the provisions stipulated in the Grants Agreement.

44. **Goods, Works and Non-consultancy services:** Procurement will be done using the Bank’s Standard Bidding Documents (SBD) for all ICB and National SBD agreed with (or satisfactory to) the Bank for all NCB, shopping and direct contracting. The Procurement Plan shall specify the circumstances under which such methods may be used.

45. **Procurement of Consultants’ Services:** Selection of Consultants will follow the Bank Consultant Guidelines. Shortlist of consultants for services estimated to cost less than US\$100,000 equivalent per contract may be composed entirely of national consultants. The Bank’s standard RFP shall be used for selection of consulting firms. The Procurement Plan will specify the circumstances and threshold under which specific methods will be applicable.

46. **Procurement Under Community Grants:** Procurement of goods, works and services under the community grants will be the responsibility of the beneficiary communities and will be based on Community Participation in procurement in accordance with paragraph 3.17 of the Procurement Guidelines and elaborated in the Bank’s *Guidance Note for Management of Procurement Responsibilities in Community Driven Projects*. Procurement responsibilities, procedures and sample documentation will be set out in the Operational Manual and in the Community Procurement Handbook which is under preparation. The POM will include the following documents related to the handling of procurement: (a) sample formats for submitting subproject proposals; (b) format for a simplified procurement plan for procurement under the subprojects; (c) procurement methods and procedures; (d) Guidance on technical assistance required to assist beneficiaries process different types of contracts; (e) simplified bid documents and forms of agreement for works goods and services that would be used by beneficiary groups; (f) sample contract form to sign between the beneficiary group and intermediaries; (f) format for reporting on procurement and contract progress; (g) requirements for records management, monitoring and procurement auditing. The Project Operational Manual and Community Procurement Handbook will be reviewed and approved by the Bank no longer than negotiations and will be made publicly available by MoIA. Each community grant recipient will receive at least one copy of the Community Procurement Handbook that provides user-friendly guidance on the applicable procedures and requirements.

47. **Procurement Plan:** A Procurement Plan for the initial 18 months of project implementation for contracts to be signed by MoIA is under preparation by MoIA and will be submitted for Bank review by appraisal and finalized by negotiations. It will be made available in the project’s database and on the Bank’s external website. The Procurement Plan will be updated annually or as required to reflect implementation needs and improvements in institutional capacity.

48. **Prior-Review Thresholds:** The procurement plan shall set forth those contracts which are subject to prior review by the Bank. The prior-review thresholds in the table below are indicative.

Table of Procurement Thresholds

| | Prior Review Thresholds (US\$ million) | Procurement/Selection Method Thresholds (US\$ million) | | | | | | |
|---------------------|---|--|------|----------|------|-----|------|-----|
| | | ICB | NCB | Shopping | QCBS | QBS | CQS | SSS |
| Goods | ≥0.1 | ≥0.20 | <0.2 | <0.05 | | | | |
| Works | ≥0.1 | ≥1.0 | <1.0 | <0.05 | | | | |
| Consulting Services | ≥0.1 for firms ≥0.05 for individuals | | | | -- | -- | <0.2 | -- |

| | | | | | | | | |
|--|-------------|--|--|--|--|--|--|--|
| | All for SSS | | | | | | | |
|--|-------------|--|--|--|--|--|--|--|

Note: (a) “—” refers to No Threshold. (b) All Direct contracting subject to prior review.

49. Frequency of Procurement Supervision: In addition to the periodic Bank Supervision missions, procurement post reviews will be carried out by the Bank every 12 months. The procurement post review sampling ratio for the first year in the case of contracts procured by MoIA will be one out of five contracts. The sampling ratio will be adjusted in the subsequent years based on the findings of the preceding year. In the case of procurement carried out in subprojects under the grants scheme by beneficiaries, the Bank will review the annual procurement/technical/financial audit reports prepared by independent external auditors and submitted by MoIA. The Bank however retains its right to conduct post reviews for procurement carried out in subprojects under the grants scheme during project implementation as may be needed.

50. Special Procurement Arrangements. The proceeds of the grant may be used for the retroactive financing required for the hiring of key PIU staff and advanced procurement for office equipment and vehicles. All advance procurement and contracts to be financed through retroactive financing will be subject to prior review by the Bank.

Environmental and Social (including safeguards)

51. This is a Category B project. Applicable environmental safeguard policies include: Environmental Assessment (OP4.01) and Pest Management Plan (OP4.09).

52. **Environmental Assessment** (OP4.01). An EMP was developed in accordance with Bank Operational Policy OP4.01. The EMP includes an analysis of the potential project impacts, mainly (i) impacts of improved fodder & vegetable production in project area, such as stress on water resources due to the new wells that may be dug to support increased local fodder and vegetable production and any irrigation undertaken, and soil erosion; and (ii) waste discharged from small-scale processing facilities. The EMP proposes adequate mitigation measures including Environmental specifications for contractors to mitigate construction related impacts. The EMP also specifies monitoring plan, institutional arrangements, capacity building activities, and the budget for the EMP implementation.

53. **Pest Management** (OP4.09). The project will not procure or supply any pesticides. However, pesticides may be induced by the improved fodder and vegetable production activities. A Pest Management Plan, as an annex in the EMP, has been developed, proposing necessary activities to mitigate and prevent potential risks and negative impacts of using and distributing pesticides. The proposed mitigation measures consist of (among others): (i) promoting practices which reduce risks in the handling of pesticides and minimize adverse effects on humans and the environment; (ii) promoting IPM to reduce the use of toxic pesticides; (iii) training and capacity building; (iv) introducing biological and botanical pesticides and promoting the development of alternatives like biological control methods and techniques, non-chemical pesticides and pesticides of low risk to humans and the environment; (v) strengthening monitoring; and (vi) reinforcing regulatory aspects. Implementation of the PMP will be undertaken by all partners

and stakeholders of LAMP. The PMP also specifies the institutional arrangement, monitoring requirements, and the budget for the PMP implementation.

54. **Public Consultation and Disclosure** In accordance with Bank Safeguard policies, public consultations were conducted, with local farmers and other stakeholders such as officials of project soum administration and ASIA and ADNET officials/staff, inspectors and local farmers on April 25-29 and on May 5-7, 2012. Their opinions and concerns have been taken into account in the EA safeguards documents. The EMP including the PMP was disclosed locally on September 17, 2012 at the local governmental website and province libraries. The final EA documents were sent to the Bank InfoShop for disclosure on October 31, 2012.

55. **Mainstreaming gender equity and empowerment.** This aspect will be a focus area in the baseline study and, subsequently, gender strategies will be designed to support project implementation. It is already anticipated that the income diversification program will have a pro-poor focus on female headed households. The social monitoring plan for the project will have relevant indicators for measuring impacts on participation of women in the project.

56. **Social accountability and grievance redress mechanism.** Participatory processes such as social audit, citizens report cards (CRCs) and community score cards (CSCs) that would acquire feedback on performance of the interventions and of the agencies involved in planning and execution will be the key tools used for social accountability. The SC will act as the **first tier** of the Grievance Redress Mechanism (GRM). A **second tier** GRM will be established at the aimag level and the **third tier** of the GRM will be the Project Director at the national level.

Monitoring and Evaluation:

57. **Baseline data** is currently unavailable. One of the activities the project will embark within the first six months of effectiveness is to engage the services of a consultant, if necessary, to collect baseline data for indicators with the help of DIME.

58. Monitoring and Evaluation (M&E) of the proposed project follows the guidance provided by the M&E plan 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: a) Management Information System (MIS); b) progress monitoring system; and, c) independent process monitoring system. As per the Bank's requirements, pre-determined targets of selected performance indicators will be examined at the times of mid-term evaluation and implementation completion. Evaluation will be carried out with internal evaluation and independent external impact evaluation.

59. 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 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, MoIA and soum VABA will also be trained to gain good understanding of M&E.

60. A simple but effective web-based MIS will be developed for the project. There is a strong indication of MoIA that if successful, the implementation modality will be replicated

under the NLP. Thus the investment for a web-based MIS, which will constitute the backbone of the project can be justified. A server will be installed at the PIU with an access from the participating *soums* using web-based application. The system will record all relevant project input and outputs in close to real time manner. This will allow project managers at all stages and at any time to obtain relevant information about status of project implementation in order to facilitate management and supervision.

61. The MIS involves a continuous recording of project outputs. The MIS system will be designed to provide data for all necessary regular reports on project implementation including progress on physical implementation and training.

62. **Design of the MIS and MPMR:** The system will be developed at the onset of the project implementation reflecting the final design of the project and the PIM. This will avoid the need for adjustments on one hand and a backlog of information. It is suggested that the project MIS would be designed by an experienced consulting firm or individual. National consultants will be contracted for the development and establishment of the system and training of project staff in the use of the system. Emphasis will be given to make such system user friendly and compatible for use on standard computers.

63. **Progress Monitoring System:** A progress monitoring system enables continuous feedback on the status of project implementation and helps the PIU to identify specific problems as they arise. Since implementation problems and issues raised by herder groups, private sector partners, and other stakeholders for project implementing would unlikely be captured by the MIS, the project will set up an independent progress monitoring system. It is suggested that the PIU will convene a meeting every two months at each *Aimag* with government staff members who are participating in the project in both *aimag* and *soum* to (i) review the progress made; (ii) identify issues in the field; and (iii) discuss possible counter-measures for the issues. This meeting will be used to prepare bimonthly plans and review of achievements of the previous bi-monthly plans.

64. Each participating *Soum* will be required to prepare progress reports based on the bi-monthly plans and progress monitoring templates which will be developed in the PIM. This template would be designed to have information on (i) targets; (ii) current achievement; (iii) reasons of deviation; (iv) corrective measures; and (v) responsibility. The information will be compiled in the web-MIS for evaluation and preparation of counter-measures. This aims to show what is missing in achieving the goal against each target; it will help the project staff to discover critical bottlenecks and hang-ups in a timely manner and to prepare countermeasures to fill the gaps between the current and targets.

65. An **Annual Report** describing project physical and financial progress, key issues, steps taken for resolving issues and future course of action shall be prepared by each service provider and *soum* within one month of the close of the fiscal year. The format for reporting will be furnished by the PIU. The PIU shall synthesize the individual reports into the Project Annual Report which will be prepared within one months after the close of the fiscal year and after discussion with the NSC submit same to IDA and all participating donors and relevant stakeholders.

66. **Midterm Project Review (MTR):** The PIU shall prepare all the documentation needed for conducting the project MTR and facilitate the carrying out of joint Government-DPs mid-term review 24 months after effectiveness date. The MTR is an important marker in assessing project progress, ascertaining reasons for under-performance and determining solutions to address implementation issues. It also affords an opportunity to revisit project development objectives, to restructure the project in view of emerging needs, and reset output and outcome indicators realistically based on lessons learned. Each implementing agency will prepare its own mid-term review report in a format supplied by the PIU. The finalized report will be collated and synthesized by the PIU before submitting to the PSC, DPs and relevant stakeholders after a workshop to validate the report.

67. **Implementation Completion Report (ICR):** Preparation of an ICR is a mandatory requirement under the provisions of the GA

68. **Independent Process Monitoring (IPM):** The quality of key processes in the project as well as honest opinions of beneficiaries would not be captured in the MIS and the progress monitoring system. Therefore, the project will set up an independent process monitoring (IPM) where contracted independent external service providers (ESPs) will examine ‘quality’ of project activities, including (i) provision of service to beneficiaries; (ii) level of participation and inclusion of vulnerable households; (iii) benefit sharing among herder group members; (iv) level of understanding of development of value-chains and markets; (v) adherence to safeguard policies in implementing project activities; (vi) partnerships with private sector companies; and (vii) others addressed along the course of development of project activities at the field level.

69. In order to record qualitative performance of the project as well as identify positive aspects (qualitative) of the project, the IPM will also compile case studies. The objective of conducting a case study is to assess the impact of project intervention at the field level, with both herders and private sector partner companies. It also aims to understand and document changes of behaviors, and on-the-ground conditions as they are perceived by individuals, groups, and companies. The benefits of such qualitative assessment are that they are flexible and can be tailored to the needs of the evaluation. A case study also allows in-depth study and analysis of selected issues, and facilitates identification of factors or events that are contribute to or prevent expected outcomes of the project intervention. In addition, a case study enables extraction of lessons learned from target populations; views (and words) of project beneficiaries and project implementation partners can directly be delivered to key policy makers.

70. The impact evaluation will consist of a study of the causal effect of LAMP components on PDO Level Results indicators as well as the impacts of various component-specific interventions. The former will consist of a rigorous analysis of causality by establishing a valid comparison group of herders who will not benefit from the project, and comparing these herders to project participants. The latter will respond to demand from MoIA officials and other partners and would be done for the sake of identifying ways in which the different components could be improved on a yearly basis. For example, multiple possible ways of achieving beneficial behavior changes, spreading information, or increasing take-up of project services could be

tested against one another so that in each case the most effective project design components can be reliably identified and implemented throughout the project.

71. In particular during the first two years, intensive process monitoring needs to be carried out in order to improve the PIM and provision of project services to beneficiaries. Results of IMP will be presented to the project coordinator and the PIU. As prompt modifications of key project processes or design features would be critical when such problems are found, the ESP's recommendations for changes for the PIM need to be warranted by appropriate decisions and actions by the Project Steering Committee, the project director and the PIU.

72. **Internal Evaluation:** The PIU M&E officer will be responsible to consolidate and present the findings in an Annual Report. The evaluation will be based on the performance indicators of the agreed results based monitoring and evaluation framework as well as the management units own assessment in various areas of the project implementation. In addition the PIU will provide a comprehensive evaluation report at project completion. The PIU will also organize periodic workshops inviting representatives of key project stakeholders to discuss and consolidate their views and findings for the preparation of the Annual Reports and the final evaluation report.

73. **Independent External Impact Evaluation:** The internal evaluation process will be complemented by an independent external impact evaluation (IEIE), Development Impact Evaluation Initiative (DIME). The objective of the independent impact evaluation is to examine fully the achievements of the project development objectives, in particular the level of income generation and food security. It also aims to assess effectiveness of the project approach in Mongolian Livestock sector contexts

ANNEX 4: OPERATIONAL RISK ASSESSMENT FRAMEWORK (ORAF)

MONGOLIA: Livestock and Agricultural Marketing Project

| 1. Project Stakeholder Risks | | | | | | | |
|--|---|-------------|--------------|-----------|------------|---------------------|--|
| 1.1 Stakeholder Risk | Rating | Moderate | | | | | |
| <p>Description:</p> <p>Direct/Indirect beneficiaries views: Stakeholder consultation has thus far been mostly limited to central agencies and companies, with limited direct consultation with herder and herder groups, who constitute the major beneficiary group for the project. There is some risk that the project design and activities are not in line with local priorities.</p> <p>Donor relations: With other projects active in the livestock / rural development sector in the same geographic areas, there is some risk of duplication or conflict. An example is the newly approved IFAD Market and Pasture Management Development project. IFAD has raised a concern on the financial mechanism under the GAFSP project for market chain support (matching grants) which maybe more attractive than the loan guarantees offered under the IFAD project.</p> | <p>Risk Management:</p> <p>Private entity or NGOs to be engaged to deliver advisory services. The service provider, together with the cooperatives to prepare technically and financially sound business proposal which will form the basis for the matching grants support. The project to agree on signing an MOU with the Livestock Protection Fund (LPF) to work together to support the herder cooperatives to ensure that the project design and activities are in line with local priorities.</p> <p>We have consulted with all donors within the country and agreed to complement each other in soums where there are overlaps. There is also general agreement to strengthen donor coordination at the national and local level to avoid duplication. so efforts have been made to make sure the design is consistent and complementary with other initiatives. . Specific to IFAD, it has been agreed that the two projects would not operate in the same locations (soums) to avoid any conflict.</p> | | | | | | |
| | Resp: Both | Stage: Both | Recurrent: X | Due Date: | Frequency: | Status: In Progress | |
| 2. Implementing Agency (IA) Risks (including Fiduciary Risks) | | | | | | | |
| 2.1 Capacity | Rating | Moderate | | | | | |
| <p>Description:</p> <p>Resources: This operation is the first investment operation that the Bank has had with the Ministry of Industry and</p> | <p>Risk Management:</p> <p>The FAO will implement a Technical Assistance project in parallel with the Bank supervised project which will aim to fill current technical gaps in the Ministry and develop capacity to support the technical aspects of the project. The project will recruit competent and experienced staff to man the</p> | | | | | | |

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|--|---|-------------|--------------|-----------|------------|---------------------|
| <p>Agriculture as the Implementation Agency. From a technical perspective, skills are likely to be in place, though as some of the approaches under the project are new to Mongolia, there is a risk that familiarity with Bank procedures would be lacking.</p> | <p>PIU. The Bank fiduciary team will train and continue to supervise activities of the recruited staff to ensure capacity is built and retained for project management purposes.</p> | | | | | |
| | Resp: Both | Stage: Both | Recurrent: X | Due Date: | Frequency: | Status: In Progress |
| <p>2.2 Governance</p> | <p>Rating Moderate</p> | | | | | |
| <p>Description: Decision making during implementation: The decision-making processes--in particular reporting protocols and relationships--within the Ministry are not entirely clear. More specifically, it can be difficult to engage government officials in project activities, perhaps because of heavy workloads or previous engagements. There is a risk that the governance structure for the project will not be adequate to ensure strong support to project implementation.</p> | <p>Risk Management: The Ministry of Agriculture has established a preparation steering committee and a clear set of technical counterparts for the preparation team to interact with. In preparation, government is leading the process closely with the Bank and FAO, to establish common ground. The government has agreed to appoint a competent Project Coordinator and a team of competent technical specialists to be responsible for the day-to-day management of the project and interface between the Bank and the Ministry. The management structure also makes provision for the Director General of the Strategic Policy and Planning Department to chair an inter-departmental meeting to discuss the project implementation progress as well as other projects within the Ministry to ensure that all departments are conversant and up-to-date with implementation issues.</p> | | | | | |
| | Resp: Both | Stage: Both | Recurrent: X | Due Date: | Frequency: | Status: In Progress |
| <p>3. Project Risks</p> | | | | | | |
| <p>3.1 Design</p> | <p>Rating Moderate</p> | | | | | |
| <p>Description: Implementation complexity: The project aims to be comprehensive in scope in terms of support to the livestock sector, covering marketing and production issues. In addition, the project aims to support diversification away from the livestock sector, and hence has a horticulture component. This provides a wide scope of activities, which may test the implementation capacity of the PIU / Ministry of Agriculture. Natural disasters: as Mongolia livestock is</p> | <p>Risk Management: Full implementation in the provision of advisory services will be contracted out to a private service provider in each project aimag to avoid a number of agencies providing extension services to the same groups of herders and vegetable producers. The project would work with herder groups, which would be encouraged to adopt risk management practices. The Bank supported Index-based Livestock Insurance Project will be operational throughout the country by 2012, so purchasing insurance will be an option for herder groups. This may be made a requirement for those nucleus flocks and male flocks supported under the project. In the event of dzud conditions affecting livelihoods of the beneficiary communities, the project will assure emergency response quality by the application of the Livestock Emergency Guidelines and Standards (LEGS) to livelihoods-based crisis response. It is acknowledged that the project is a pilot testing approaches to support herder cooperatives, improvements to product quality and linkages to markets. The project will therefore be monitored</p> | | | | | |

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| <p>highly vulnerable to extreme weather, this could limit the effectiveness of the project if a severe dzud strikes during project implementation.</p> <p>Design Flexibility: The project areas have been pre-selected prior to project implementation based on criteria agreed upon by the Bank and the government. Funds have also been allocated per component. Although this is a demand-driven project, it is a challenge to identify exactly what beneficiaries will require up-front.</p> | <p>closely and changes will be made when necessary and in particular at mid-term, and supported by findings during supervision missions and changes made to ensuring project objectives.</p> <p>During preparation, the team would work with the Ministry to try to streamline the implementation arrangements. This may include sub-contracting certain activities (such as vegetable production) for implementation.</p> | | | | | | | | |
| <p>Resp: Both</p> | | <p>Stage: Both</p> | | <p>Recurrent: X</p> | | <p>Due Date:</p> | <p>Frequency:</p> | <p>Status: In Progress</p> | |
| <p>3.2 Social and Environmental</p> | | <p>Rating</p> | | <p>Moderate</p> | | | | | |
| <p>Description:</p> <p>Environmental: The main environmental impacts are likely to be related to the wells that may be dug to support increased local fodder and vegetable production as well as manure production and pesticide use.</p> <p>Social: There is not expected to be any displacement or resettlement under the project. There is some risk that project benefits would be captured by local elites.</p> | | <p>Risk Management:</p> <p>The government has prepared an environmental management plan which will be closely monitored by the Bank team to ensure compliance.</p> <p>At the soum level, the project activities would mostly be working with herder groups (organized as cooperatives, NGOs or possibly informal groups), which should prevent elite capture. Experience gained in Mongolia (for instance under the Sustainable Livelihoods Program) has shown that larger scale, more wealthy herders tend not to be members of herder groups.</p> | | | | | | | |
| <p>Resp: Both</p> | | <p>Stage: Both</p> | | <p>Recurrent: X</p> | | <p>Due Date:</p> | <p>Frequency:</p> | <p>Status: In Progress</p> | |
| <p>3.3 Program and Donor</p> | | <p>Rating</p> | | <p>Low</p> | | | | | |
| <p>Description:</p> <p>Other partners: The project is aligned to the associated FAO Technical Assistance. The two are mutually supportive and therefore will be implemented under the same implementation unit The FAO TA which is providing capacity-building and developing manuals and guidelines to support the investment activities supervised by the has commenced prior to project</p> | | <p>Risk Management:</p> <p>Preparation activities are being done jointly with the FAO team to ensure a coordinated approach. We will ensure that a single report on both the FAO and Bank components to the project are delivered to the steering committee. The Bank team will continue to encourage MoIA officials to monitor the performance targets described in the FAO project document.. Contingency plans will also be made to contact GAFSP to reallocate resources to ensure that the project is implemented successfully.</p> | | | | | | | |

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| effectiveness. The commencement some of these activities has delayed, and prolonged delays will affect the implementation of the project. If both project are not effective at the same time, or move ahead on different timelines, the outcomes of each may be compromised. | | | | | | |
| | Resp: Both | Stage: Both | Recurrent: X | Due Date: | Frequency: | Status: In Progress |
| 3.4 Delivery Monitoring and Sustainability | Rating | Substantial | | | | |
| <p>Description:</p> <p>Project Delivery / Contract Monitoring: As discussed above, this would be the first investment project that the Bank has had with the Ministry of Agriculture. The capacity of the Ministry and PIU to conduct procurement and monitor contract implementation is therefore largely unknown.</p> <p>Monitoring and Evaluation: None of the baseline data has been collected and M&E system is not in place.</p> <p>Sustainability: For the public goods which are supported under the project and which will require continued budget allocations beyond the lifetime of the project, there is risk that public budget will not be available.</p> | <p>Risk Management:</p> <p>The Project Implementation Manual includes a procurement chapter to provide clear guidelines on procurement and contract monitoring under the project. The PIU has a procurement officer to be responsible for these tasks. Training and guidance would be provided by the WB office and team as required.</p> <p>A Monitoring and Evaluation system will be established. In this regard, additional support will be provided by the Development Impact and Evaluation initiative (DIME) which will help to organize and finance the baseline study and to design and implement impact evaluation. Baseline data will be collected within the first 6 months following project effectiveness. The project would work with the Monitoring Department of the Ministry of Agriculture in this regard.</p> <p>Many of the investments under the project (value chains, vegetable production, etc.) do not depend on continued support beyond the project's lifetime. The project is designed in such a way that each proposal financed through the matching grant scheme meets financial and technical sustainability requirements. The government can continue to use the design model set forth in the project, as commonly practiced in Mongolia.</p> | | | | | |
| | Resp: Both | Stage: Both | Recurrent: X | Due Date: | Frequency: | Status: In Progress |
| 4. Overall Risk | | | | | | |
| | | | <p>Implementation Risk Rating: Moderate</p> | | | |
| | | | <p>Description:</p> <p>The overall risk rating is Moderate for implementation. Country ownership of the project is strong, and the project would be well aligned to the long term commitment to supporting the livestock sector. The design is consistent with government policy in the sector and the</p> | | | |

emphasis is on building upon successful experiences within the country. The design has taken into account the low capacity of the implementing agency and has complimented that with a well staffed project implementation unit with considerable experience in managing other donor funded program.

ANNEX 5: IMPLEMENTATION SUPPORT PLAN

MONGOLIA: Livestock and Agricultural Marketing Project

Strategy and Approach for Implementation Support

1. The implementation support strategy design is built on the following premise:
 - (i) The implementing agency, the MoIA, is new to Bank operations and therefore not conversant with Bank operational procedures;
 - (ii) Project implementation will be decentralized to the aimags and soums;
 - (iii) Project has reasonable amount of interrelated components which require good coordination for synergy;
 - (iv) Initial guidelines for the implementation of project activities are expected to be delivered by FAO/TA which will require the sequencing and synergy in implementation.

2. As a result the following implementation support strategy is proposed:
 - (i) The project will be supervised by an experienced TTL with considerable knowledge in Bank operations and a background in agriculture with active involvement of country-based staff. In addition to the safeguards and fiduciary specialists, the supervision team will include international consultants who have been involved in project preparation (FAO/CP) to assist the borrower during project implementation, in particular the more technical aspects of the project. FAO will join all supervision missions and field a team of experts when necessary.

 - (ii). The project implementation manual, matching grants manual, financial management procedures manual and procurement plan will be prepared and finalized prior to project negotiations and/or as dated covenants and effectiveness key PIU staff will be appointed prior to effectiveness. Supervision will also start immediately after effectiveness and the project will be launched in all aimags to be followed by a two-day workshop to explain the details of the project and the roles of the respective agencies. Frequency of supervision is expected to be 2 per year.

 - (iii). Fiduciary and safeguards will be key component of the initial workshops and Bank staff in addition to missions will continue to mentor and provide guidance to project staff throughout the implementation period.

 - (iv). Implementation Plan will be revised regularly on the basis of project progress and continuous risk assessment.

Implementation Support Plan

3. Technical Support. Most of the investments contemplated under the Project are technically relatively complex especially in terms of ensuring that the activities to be funded actually result in the expected efficiency improvements. A number of consults will be provided

in the form of technical assistance within the PIU and also external during supervision to provide hands on guidance and mentoring to the implementing entities.

4. **Fiduciary Support:** This is crucial considering the lack of experience and familiarity with Bank procedures by the implementing agency, consequently, the PIU will engage the services of an experienced Financial Management Specialist, whilst Bank staff will provide guidance and the necessary training required. The FM supervision will commence soon after effectiveness to ensure all FM arrangements are in place for the commencement of project implementation. Project supervision will include reviews of annual audit reports to provide assurance regarding proper use of funds, review of quarterly financial reports and at least one FM supervision mission each year.

5. On procurement, prior review thresholds will be established in the procurement plan, the scope of the review should not be less than 15 percent of contracts not subject to prior review by the Bank. Given the significant weakness in the implementing agency, there will be a mandatory prior review of the first contract and all the personnel involved in procurement will have mandatory training under IBRD Guidelines. Bank staff will provide support. Frequency of post review should not be less than once a year as part of regular Bank fiduciary responsibilities.

6. **Safeguards support.** The project is rated category B-partial and does not foresee large environmental or social impacts, however, the safeguards specialist on the team will continue to monitor closely the adherence of the borrower to the EMP.

7. **Implementation main focus.** The following table summarizes the main focus of implementation and the skills required during the life of the project.

| Time | Focus | Skills Needed | Resource Estimate | Partner Role |
|-----------------|---|--|--------------------------------------|-------------------------------|
| First 12 months | Project start up, setting up implementation structures, orientation workshops for all implementing agencies, procurement of all TAs, equipment and staff. | Procurement, safeguards and financial management specialist. Technical specialist for breeding, nutrition and fodder production, veterinary surgeon, horticulture, animal husbandry and value chain specialist | Normal supervision budget and FAO/CP | Provide additional specialist |
| 12-48 months | Ensure effective field implementation of project activities contribute to the attainment of the PDO | Procurement, safeguards and financial management specialist. Technical specialist for breeding, nutrition and fodder production, veterinary surgeon, horticulture, animal husbandry and value chain specialist | Normal supervision budget and FAO/CP | Provide additional specialist |

Skills Mix Required

| <i>Skills Mix Required</i> | | | |
|--|------------------------------|------------------------|-----------------|
| <i>Skills Needed</i> | <i>Number of Staff Weeks</i> | <i>Number of Trips</i> | <i>Comments</i> |
| <i>Value Chain Specialist</i> | 6 | 4 | |
| <i>Horticulture Specialist</i> | 4 | 4 | |
| <i>Animal Husbandry/Nutrition Specialist</i> | 6 | 4 | |
| <i>Fodder production specialist</i> | 6 | 4 | |
| <i>Animal Breeder</i> | 6 | 4 | |
| <i>Procurement Specialist</i> | 8 | 8 | |
| <i>Financial Management Specialist</i> | 8 | 8 | |
| <i>Safeguards Specialist</i> | 6 | 4 | |
| <i>M&E Specialist</i> | 6 | 4 | |

Partners

| Name | Institution/Country | Role |
|-------------|----------------------------|-------------|
| FAO | Rome | Counterpart |

ANNEX 6: Economic and Financial Analysis

MONGOLIA: Livestock and Agricultural Marketing Project

A. Project benefits and costs

1. In modeling the impact of LAMP on rural livelihood and food security, the project team included significant benefits that would accrue to the project's beneficiaries through efficiency gains in marketing and transport of LAMP products; reduced losses and mortality of animals due to improvement in breeding and animal health techniques; and reduced expected losses due to severe weather conditions (*dzud*). The project will assist herder groups to improve basic collection, handling, cleaning, sorting, packaging, storage etc; improve Mongolia's meat export through the establishment of trade agreements on meat exports; enhanced skill levels of veterinarians and para-professionals and upgrading of check points; and disease surveillance and delivery services for animal health. The LAMP activities will enhance the health and marketing efficiency of livestock in selected *Soums* in Mongolia to increase incomes accruing to the target population. The implementation of the project's activities will create significant employment for the poor in the intervention areas. Specific benefits would include: the sale of beef, horse, mutton, goat, internal organs for large animal, sausages, beef sheet, horse sheet, mutton skin goat skin, small intestines, large intestines; the sale of drinking milk, yogurt, butter, fermented curd, dried curd, and flavored curd. Proceeds from these activities would improve the livelihoods of the beneficiaries through improved incomes.

2. To ascertain the true cost of the activities a detailed costing of all relevant activities was undertaken. Examples of costs items included in the analysis are: hanging equipment, cook and smoke house, mincer, stuffer, fridge, working table, stainless steel, cutting table, plastic boxes, meat trolley, and vacuum stuffer in the case of meat production; and for milk processing, bag sealing machine, milk pasteurizer, kettle, cheese press-crew, washing trough, milk separator, butter churner, milk thermometer, lactometer, butter wooden moulds, plastic crates, packaging paper, packaging machine, drying machine, aluminum cans, strainer, plunger, manual cup sealer.

3. Other significant costs included in the analysis are: the costs of raw materials, packaging materials, utilities (water, electricity, heating), washing and cleaning, labor, equipment and maintenance.

B. Methodology and subprojects models

4. The evaluation team focused on specific activities of the project's subcomponents, which would generate the expected benefits and for which data were available. Useful information was obtained from the ongoing projects that support small industries in three key value chains (meat, milk and wool) in Mongolia.

5. Through discussions and consultations, the team also obtained significant information from policy makers and sector authorities in order to get views on the expected project's impact on the people of Mongolia.

6. Important statistical data on domestic prices, production and yield, were obtained from the national statistics office.

7. Using the available primary and secondary data, the team developed and analyzed the following production models for first tier processing units.

- Small scale slaughter house (meat production), milk processing units, and wool cleaning factory (wool processing), field vegetable crops, fruit crops, and storage and marketing.
- Other production models that were developed include: large and small ruminants breeding-- sire and multiplier flocks, sire and multiplier flocks and female nucleus-- in the case of animal breeding activities; and fodder production units for animal nutrition activities.

C. Key underlying assumptions and notes

8. In order to perform the CBA analysis that would generate the expected benefits using the aforementioned models, the team took into account the following assumptions.

- *Small scale slaughter house.* 340 large animals and 2,000 small ruminants for period of eight months were assumed for slaughter house facilities in *Soums* close to the *Aimag* center.
- *Milk processing units.* The analysis assumed 3 types of milk processing units: (a) *Soum* centre-based 100 litres/day dairy unit producing pasteurized milk, yogurt, fermented curd, and butter; (b) 400 litres/day dairy unit producing pasteurized milk, yogurt, sour cream, dried curd, and butter; and (c) 2,000 litres/day dairy unit. Main investment items included: building, milk pasteurizer, cooling chambers, milk separators as well as tools and instruments, including acquisition of a motor truck for milk collection for the 400 and 2000 l/day.
- *Wool cleaning factory.* The analysis assumed that a wool cleaning factory would produce 673 tons of graded clean wool per year.
- *Vegetable production, processing and marketing.* For this activity, the analysis assumed the establishment of 10 ha of plot of land for vegetable production in 8 different locations, each benefiting 50 households. Three of these plots would be cultivated at first year of implementation, while the remaining five plots would be cultivated in year 2. During year 2 the project would also introduce new enterprises – namely greenhouse tomato and cucumber – and an expansion of fruit crops in 5 locations, as well as processing units for pickled vegetables production in 2 locations.
- The analysis assumed that households will consume vegetables and fruit according to the national average – as well as for family labor. *Animal health.* Average gross livestock output per animal was used as a proxy for the increase in productivity and unit value of the livestock, with significant number of animals expected to be reached by the project, including increased gross output per animal reached. Other significant assumptions are: (i) the number of animals in target *Soums* would remain within the average of the last 5 years; (ii) animals would live for four years on average and would be vaccinated once; (iii) the number of animals in the target *Soums* would be the same as the average number of animals per *Soum* in the respective *Aimag*; (iv) the project will develop its activities in 3 *soums* in each of the 5 target *Aimags*; (v) average gross output per animal was assumed to be \$86.29.

- The analysis took into account the severe weather (*dzud*) condition and calculated two separate of economic rate of return (ERR) to show the impact of the weather on animal health activities. It was assumed that *dzud* occurs in every four years.
- The analysis did not take into account positive externalities from project interventions as the region has considerable amount of animals vaccinated with low spread of disease. Also not included in the analysis were potential benefits to human health or recognition of some regions in Mongolia as producers of safe meat.
- 12 flocks with 240 males (120 rams, 120 bucks) were selected based on their phenotype, and were assumed for animal breeding interventions. Every year 80 males would be replaced, and they would mate females from selected flocks with good females typical for the breed and their herders are interested in improving their livestock quality – multiplier flocks. These multiplier flocks would see a progressive increase in the quality and quantity of the wool/cashmere and in the weight of their animals and provide improved males for other flocks (production level).
- An exchange rate of 1,200 MNT to 1US\$ was used for the analysis.
- A discount rate of 12 percent was assumed to generate the expected NPV and ERR.
- On the average, a 10-year period was assumed for the analysis.
- To eliminate distortions taxes were excluded from the analysis.
- Overall, the analysis took into account working capital of the production units as funding would be in the form of matching grants.

D. Results of the Analysis

9. Upon the basis of the above assumptions and taking into account the project's expected benefits and cost the results of the analysis are shown in table 9.1 below.

Table 9.1: Estimated Net Present Value (NPV) and Economic Rate of Return (ERR) of Project Activities

| Components/Activities | Net Present Value (NPV) in US\$'000 | Economic Rate of Return (ERR) |
|--|--|-------------------------------|
| Subcomponent 1a: Value Chain and Market Development | | |
| <i>Meat production</i> | 148,691 | 56% |
| <i>Wool processing</i> | 1,348,846 | 77% |
| Subcomponent 1b: Pilot Milk Collection and Processing Scheme | | |
| <i>Milk processing units</i> | 179,092 | 74% |
| Subcomponent 1c: Pilot Horticulture Production and processing | | |
| <i>Vegetable production</i> | 5,558,957 | 100.5% |
| Subcomponent 2a: Animal Health | | |
| <i>Animal health with dzud</i> | 42,089 | 63% |
| <i>Animal health without dzud</i> | 48,037 | 68% |
| Subcomponent 2b: Genetic Improvement and Breeding Management | | |
| <i>Large Ruminants</i> | | |
| Artificial Insemination Development | 176,147 | 21% |
| Beef Development with feed | 2,327 | 12% |
| Beef Development without feed | 3,969 | 13% |
| Beef Development Calves Feeding | 7,576 | 12% |
| Beef development Adult feeding | 35,872 | 13% |
| <i>Small Ruminants</i> | | |
| Sire Flock | 24,442 | 1.14% |
| Sire Flock Multiplier | | |
| Breeding of Small Ruminants | 1,794 | 23% |
| Female Flock | 7,808 | 12% |
| Subcomponent 2c: Animal Nutrition | | |
| <i>Fodder Production</i> | 4,718 | 14% |
| Overall | | 42% |

E. Sensitivity analysis

10. To test the robustness of the analysis, a sensitivity analysis was conducted for selected project interventions through a reduction in sales prices and operating costs of the proposed activities. The analysis showed that the ERRs and NPVs of the proposed activities are not sensitive to changes in sales prices or operation costs; the project's switching values correspond

to small variations in sales price or operating costs. Table 2 provides the results of the sensitivity analysis of selected production units (meat, milk, and wool).

Table 9.2. Switching values for input and output of the project' investments

| | Meat | Milk 100 l/day | Milk 400 l/day | Milk 2000 l/day | Wool |
|---------------------------------------|------|-------------------|-------------------|--------------------|------|
| Maximum % decrease in sales prices | 12 | 12 | 7 | 8 | 18 |
| Maximum % increase in operating costs | 17 | 19 | 10 | 12 | 35 |

F. Conclusion

11. From the above analysis, and the results in tables 9.1 and 9.2, it is clear that when the project's benefits are compared with its costs, the net present value and economic rate of return depict positive outcomes. This means that the project's investments are economically and financially viable. An analysis (sensitivity analysis) undertaken to address the uncertainties associated with the choice of project variables also showed positive outcomes when the sales prices and operating costs of the interventions were altered for selected products.