



1. Project Data

Project ID P125964	Project Name MN - Livestock and Agricultural Marketin	
Country Mongolia	Practice Area(Lead) Agriculture	
L/C/TF Number(s) TF-14820	Closing Date (Original) 31-Jan-2017	Total Project Cost (USD) 10,950,482.54
Bank Approval Date 04-Jun-2013	Closing Date (Actual) 31-Dec-2017	
	IBRD/IDA (USD)	Grants (USD)
Original Commitment	11,000,000.00	11,000,000.00
Revised Commitment	10,950,482.54	10,950,482.54
Actual	10,950,482.54	10,950,482.54

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2. Project Objectives and Components

a. Objectives

The same project development objectives were stated in the Grant Agreement (p .5) and in Project Appraisal Document (p. 16), which are: **“to improve rural livelihoods and food security in selected Aimags and Soums through investments in enhanced productivity, market access and diversification in livestock-based production systems.”**



b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Will a split evaluation be undertaken?

No

d. Components

The project had three components:

1. Linking Herders with Markets (Appraisal Estimate US\$6.26 million, Actual US\$4.23 million)

The component aimed 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 also aimed to support traceability of products for participating herder cooperatives. There were three sub-components: (i) Meat and fiber development sub-component supported formalized herder groups (NGOs or cooperatives) to be linked with buyers and or processors of meat and fiber. Investments with the herder groups financed basic collection, handling, cleaning, sorting, packaging, storage and similar activities. (ii) Dairy market development sub-component supported investments in facilities owned by dairy cooperatives for small-scale milk collection and processing plants as well as training to provide the opportunity to process dairy products locally, add value and extend the marketing season. (iii) Pilot horticulture production sub-component focused on female-headed households, groups of unemployed families and herders with animal heads below the national average, to establish basic vegetable production plots.

2. Raising Livestock Productivity and Quality (Appraisal Estimate US\$4.23 million, Actual US\$4.98 million)

The component financed extension services in the areas of animal health, nutrition, breed improvement and feeding to improve the productivity of the five species (sheep, goat, horse, cattle/yak, camel) within the semi-nomadic production system through breeding, feeding and animal health. The component comprised three subcomponents: (a) Promoting animal health, (b) Animal breeding and genetic improvement, and (c) Animal nutrition.

3. Project Management (Appraisal Estimate US\$1.00 million, Actual US\$1.74 million)

This component was to support the coordination of project activities and the fiduciary functions of the Project Implementation Unit (PIU) to be established by the Ministry of Industry and Agriculture (MoIA). Specifically, the component financed staff and consultant salaries, operating costs, technical assistance, training, M&E activities, annual audits and information dissemination.



e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Project Cost: Total project cost at appraisal was estimated at US\$11.5 million, actual costs were US\$10.95 million (95 percent).

Financing. According to the PAD (p. 22), the project was planned to be financed by a specific investment grant with the amount of US\$11 million, with International Development Association (IDA) acting as trustee and supervising entity of the Global Agriculture and Food Security Program. Beneficiary contribution was estimated at US\$ 446,000 and participating soums (districts) would contribute US\$40,000. Food and Agriculture Organization (FAO) would provide US\$1.5 million as additional TA to the Ministry of Industry and Agriculture (MoIA) for the capacity building. At project closing the IDA grant was 99 percent spent (US\$10.95 million). The ICR did not report on actual contribution for other sources of financing.

Borrower Contribution. The Government would provide in-kind contributions of office space and staff at the head office and soums (districts).

Dates: The project was approved on June 4th, 2013 and effective eight months later, on Feb 5th, 2014, 2011. The original closing date was January 31st, 2017. This date was extended for 11 months through restructuring in April 2016 because of the delays observed at project effectiveness and start; therefore, extension was needed in order to complete disbursements; and the actual closing date became December 31st, 2017.

Restructuring: The project went through one Level II restructuring to: (i) revise results framework to revise target of one outcome indicator, and remove or merge some intermediate outcome indicators, since these were not measurable in the nomadic context or may result to double-counting for the same intervention); (ii) extend project closing date for 11 months mainly due to delays observed at project effectiveness, to complete all activities by the original closing date; (iii) reallocate some proceeds between categories (from unallocated category to sub-grants category to accommodate higher operating costs for M&E will be insufficient and recruitment of a fiduciary assistant hosting of the Livestock Early Warning System).

3. Relevance of Objectives

Rationale

The PDO remained **highly** relevant to Mongolia's and the World Bank's development priorities throughout the duration of the project. Livestock-based agriculture has been a backbone of society in the Mongolian economy, with more than 85 percent of the agricultural population depending on livestock production and livestock-based industry contributing to around 10 percent of all export revenues. The sector however, consisted almost entirely of nomadic pastoralism with roughly 70 percent of herding families having



subsistence herds of less than 100 animals (PAD page 11-12), and the sector being vulnerable to extreme weather conditions. In addition, despite the large quantity of livestock, Mongolia has been unable to reap the benefits of exporting its meat and other by-products as there are no cohesive supply chains in the livestock industry. Urbanization and changing demand patterns were driving change in the livestock sector, including linkages between producers and markets.

The PDO was in line with the National Livestock Program (NLP). With the goal to address poverty in the herding sector, to protect and recover the pasture resource, and to develop a modern, competitive and sustainable livestock industry, the Government of Mongolia approved the NLP in May 2010. 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. During this time, the Government was allocating about than 3 percent of the national budget to the NLP.

The Global Agriculture and Food Security Program (GAFSP) proposal that was discussed with donors and key stakeholders also included priority issues that were in line with the PDO, with the goal of supporting underdeveloped agro-industries and value chains as well as developing herder's livelihood opportunities, improve veterinary services and livestock breeds and productivity.

The PDO was also aligned with the World Bank Country Partnership Strategy (FY2013–2017, which emphasizes building a sustained and diversified economic base and addressing continued vulnerabilities in rural areas. The development of the livestock sector to support rural communities is an important aspect in addressing the growing inequality concerns.

In addition to being well aligned with both national and Bank priorities, the PDO was well formulated. The project's development objectives are pitched at a level that adequately reflects a potential solution to a development problem. The objective was defined such that its envisioned achievements of improved livelihoods and increased food security would be plausibly traceable from the adequately defined final outcomes of enhanced productivity, market access and diversification in livestock-based production systems. This therefore merits a high rating for Relevance of Objectives.

Rating
High

4. Achievement of Objectives (Efficacy)

Objective 1



Objective

The PDO is to improve rural livelihoods and food security in selected Aimags and Soums through investments in enhanced productivity, market access and diversification in livestock-based production systems. This ICR Review considers “to improve rural livelihoods in selected Aimags and Soums” as the first objective and “to improve food security in selected Aimags and Soums” as the second objective and “investments in enhanced productivity, market access and diversification in livestock-based production systems” as the intermediate outcomes.

Rationale

According to the theory of change (ICR para. 6-8), two primary sets of activities contributed to the intermediate results and achievement of the outcomes: Under the first main component “linking herders to markets”, the project supported establishment of productive partnerships for meat, dairy and horticulture production (providing high-value alternative livelihood options for women, young farmers, and vulnerable households). These activities were closely linked to the intermediate outcomes of “improved market access” and “diversification in livestock production systems”. Under the second main component, “raising livestock productivity and quality” the project supported improved disease and surveillance infrastructure and laboratory services, animal breeding and genetic improvement as well as enhanced fodder production and better feeding practices to enhance animal nutrition. These activities were linked to enhancing productivity intermediate outcome. All of these outcomes would contribute to the two objectives of improved rural livelihood and food security in project areas. The ICR noted that (para. 8) the design tried to provide a balance between the hardware and software components as well as between private and public investments. The project targeted herders for livestock related activities; and poor and farmer households for agriculture / horticulture activities. The project selected Technical Service Providers (TSPs) on competitive basis who assisted in formation of cooperatives, or Local SMEs, supported their capacity building as well as preparation of business plans and sub-project proposals. The grants program was demand driven hence except from eligibility criteria no other condition was imposed. Market linkages were supported through careful analysis of local supply- and value-chains by the selected TSPs and facilitation of contractual arrangements between the producers (herders and herder coops) and primary processors (slaughterhouses, milk processors. etc).

Outputs:

- **Grants targeting meat, fiber, dairy and horticulture production:**

a. Matching grants up to a maximum of USD 150,000 to cooperatives and agribusinesses for productive partnerships on meat, fiber and dairy production and marketing. The grants were provided based on sub-project proposals that were location/cooperative/investment specific which also quantified the financing gap. The size of these matching grants ranged between USD 12,500 to USD 143,500. The end-clients-herders were organized into 129 herder cooperatives supported by productive partnerships with an investment of



USD 3.3 million. The subprojects included meat production, wool cleaning and processing, milk processing units, potato farming, and greenhouse vegetable production.

b. Micro grants up to a maximum of USD 10,000 were provided to vulnerable groups on pilot horticulture production (68 sub-projects). These grants ranged between USD 4,600 to USD 9,600. Through these grants, 3,978 individuals from 787 households were supported with a total investment of USD 1.2 million. Beneficiaries included 203 female-headed households with less than the national average number of animals and 858 households with incomes below the minimum income level. In addition, 1,167 unemployed people were covered by the project, of which 610 or 52 percent are women. (No targets were monitored by sub-sectoral breakdown for grants).

• **TA and Grants on raising livestock productivity and quality:**

- **Animal health:** The project supported the disease surveillance infrastructure and laboratory services; cold chain vehicles for ensuring vaccine quality; and front-end delivery of veterinary and breeding services by supporting 8 Aimag-level veterinary divisions (region level), 15 Soum-level (district level) veterinary and animal breeding units, 40 private veterinary units (PVUs), and 6 buffer zones check points, with the total investment of US\$0.8 million (no targets were provided by the ICR).
- **Animal breeding and genetic improvement:** 41 subprojects, with a total investment of US\$1.4 million, procured 6,635 heads of breeding young sires and rams. The project established 20 male flocks and 19 nucleus flocks and initiated efforts to increase their number using artificial insemination (AI) and embryo transfers (no targets were provided by the ICR).
- **Animal nutrition:** The project also supported 24 subprojects on animal nutrition with an investment of US\$1.7 million resulting in (a) fodder development of over 1,014.9 ha producing 1,050 tons of green fodder and 465 tons of natural hay and (b) production of 125 tons of mineral bricks and 14 tons of salt bricks (no targets were provided by the ICR).

Intermediate Outcomes

- **Enhanced market access.** These activities partially served this intermediate outcome.
- According to the ICR (page 33), 64 market linkages were established (exceeding the target of 60). The ICR provided the example of a productive partnership between Altain Surleg Nuruu LLC meat exporter, and 350 local herders for regular supply of quality livestock for meat processing in Gobi-Altai Aimag (first level administrative division-region). Based on the internal annual and independent household surveys, the share of marketed product output was higher than the revised target (see below) but share of contracts formed particularly written contracts was not sufficiently high compared to non-project beneficiaries.
- According to a household survey (internal project M&E results), the share of marketed products going through contracts were for meat (45 percent), milk (37 percent), wool (42 percent), green fodder (53 percent), hay (31 percent), and potatoes (50 percent); this exceeded the revised target of 30 percent (original target was 100 percent).
- According to the end line survey (carried out independently), the share of livestock products marketed through contracts was 57 percent (informal contracts contributing 43.1 percent and written contracts contributing 14.2 percent) of the produce. Likewise, 61.6 percent of horticulture produce was marketed through contracts and established companies (written contracts contributed to 8.8 percent and informal



contracts contributed to 52.8 percent). The results framework did not have specific targets for informal and written contracts). However, compared to control group the share of contracts was not that high for livestock: the share of livestock products marketed through contracts for treatment households was 7 percent more than the control group, while this difference was 25 percent for horticulture products (ICR page 12-13).

- **Diversifying income.** Horticulture production mainly served this intermediate outcome, as these herders began producing horticulture for the first time, which would not only contribute to diversified income but also help improving food security and diet diversification. The ICR economic and financial analysis estimated about Mongolian Tugrik 2.5-3 million profit from these activities (ICR page 51).
- **Enhanced Productivity.** The ICR did not provide any indicators to measure intermediate outcome of enhanced productivity. However, the ICR stated that (page 16) productivity of rams and sirens increased by 15 percent to 20 percent (no targets or comparisons were provided).

Outcomes:

The PDO to improve rural livelihoods was **substantially** achieved. The ICR provided evidence on substantial income increases for project beneficiaries compared to a control group mainly for horticulture and partially for livestock. Also, a percentage increase of output for project beneficiaries was higher in general than that of the control group. However, the results on forming formal marketing linkages for different types of products was in general weak, i.e. the percentage of marketed products particularly through written contracts for project beneficiaries were not notably higher than the control group farmers. The ICR argued that (para. 17) this was the first introduction on the use of contracts and for opening new marketing avenues for project beneficiaries. Similarly, the project team subsequently noted that the project supported setting up of new cooperatives and control groups were mainly cooperatives/groups that had been operating for a while with already established business connections, and this could partly explain the insignificant differences between the treatment vs. control groups on forming market linkages.

The project supported 13,684 beneficiaries (44 percent female) in total through different means; this exceeded the revised target of 12,000 beneficiaries.

According to the external evaluation survey, income increase for project beneficiaries were higher than the control group; i.e. on average the income increase was 88 percent for livestock and 885 percent for horticulture, compared to the baseline. Compared to the control group, the income increase for treatment group was 27 percent higher for livestock and 274 percent higher than the control group for horticulture (ICR page 12).

According to the external evaluation survey, the percentage of increase of output for selected commodities were: average annual total output in project areas for meat was increased by 52 percent compared to the baseline value, which is 33 percent for milk, 22 percent for wool, and 48 percent for cashmere. Compared to the control households those increases were substantially high, except for cashmere. Meat output was higher by 59 percent, milk output was higher by 395 percent, and cashmere output was higher by 10 percent, but wool production was lower by 1 percent when compared to the control households.



Rating
Substantial

Objective 2
Objective

The second objective is: to improve food security in selected Aimags and Soums.

Rationale

Outputs:

Previous outputs and intermediate outcomes also contributed achievement of the second objective. Grants on meat and dairy production as well as support on animal health and animal nutrition activities led to achievement of this outcome.

Outcome:

The PDO to improve food security in selected Aimags and Soums was **substantially** achieved. The project helped to significantly increase output of key commodities of meat and dairy, as well as diversified food sources by supporting horticulture production (see above). In addition, the consumption of key food items increased by 18.75 percent on average. Using the Household Diet Diversity Score measure, most households were in the high diversity group (treatment 67.3 percent and compared to control 58.9 percent). (ICR page 13).

Rating
Substantial

Rationale

Both objectives are rated substantial, making the overall efficacy rating Substantial.

Overall Efficacy Rating
Substantial



5. Efficiency

Economic and financial efficiency:

A conventional cost benefit analysis was used both at appraisal and at completion. The analysis was based on financial models of income generating sub-projects (slaughterhouse, meat storage, wool cleaning and processing, dairy, potato farming, greenhouse (cucumber and tomato), sea buckthorn, mixed vegetable, oat and hay, mixed fodder, mineral bricks), which were then converted to economic analysis. Financial analysis was built on enterprise data and the data on key financial parameters (investment cost, total income, and total operational and general costs) were converted to economic parameters for economic analysis (by removing taxes and family labor salary assumed at 50 percent of hired labor). One important difference comparing the economic benefits of the PAD and at closing that was noted in the ICR was that under the animal breeding activity, artificial insemination (AI) for cattle was not implemented, and instead AI for small ruminants (sheep and goats) with different costs and benefits was done. The project team also subsequently reported that the analysis at appraisal was based on the data collected from the original soums, which had been almost completely changed during implementation (Para 17). Thus, the production and transportation conditions, and the size and scope of operations were different from appraisal assumptions.

Out of 121 sub-projects, 46 sub-projects were used for the analysis (the sub-projects that filled in the survey template) and twelve enterprise models were developed. End-line survey data was used to calculate the potential increase of meat and hair output of sheep and goats compared to treatment and control Soums. The benefits considered included increase of productivity of livestock products; efficiency gains in processing, marketing, and transporting value-added products; and reduced losses and mortality of animals due to improvement in breeding and animal health services; and reduced risks due to improved techniques of protecting livestock against severe weather conditions. Project costs considered were production tools and equipment; labor costs; raw materials; utilities and maintenance costs. The main assumptions were: taxes included social insurance (10 percent of hired labor cost) and enterprise net income tax (10 percent of net income), duration of the investment 20 years and salvage value 5 percent of the investment cost; all subprojects started 100 percent operation from fourth year, except the meat slaughterhouse; subprojects represent cooperatives and most of them were newly established for the project, hence it was assumed that the 'without project' scenario was set to zero, or no former activities for cooperatives.

However, assuming without project scenario for all sub-projects as zero could make sense for newly introduced crops like horticulture but for other livestock products, this may be unrealistic, as the herders would still have some income before the project. However, it is not known how much impact there would be on the incremental benefits, if the analysis included some level of income for without project situation, as income increase was significantly higher in general for project beneficiaries (see above section).

Accordingly, the financial internal rate of return ranged from 12.1 percent (dairy) to 56.9 percent (oat and hay). Economic internal rate of return (EIRR) ranged from 13.2 percent (dairy) to 61.7 percent (oat and hay). Average EIRR at closing was 35 percent compared to 42 percent at appraisal (higher than the opportunity cost of capital of 12 percent).



Operational and administrative efficiency:

The project closing date was extended for eleven months mainly due to delays observed at project effectiveness. In addition, project implementation was also negatively affected by the reorganization in the management of the executing (six ministers and five state secretaries oversaw project implementation). that caused delays in decision making and processing of the technical and financial documents. However, the project activities were completed all project funds were disbursed after the project closing date extension.

The efficiency of the project is rated **substantial** due to significant economic efficiency (though with some reservations on assumptions) and overall operational efficiency.

Efficiency Rating
 Substantial

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	42.00	95.00 <input type="checkbox"/> Not Applicable
ICR Estimate	✓	35.00	83.00 <input type="checkbox"/> Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

The Relevance of Objectives is rated High; Efficacy of the objectives “to improve rural livelihoods and food security” is rated Substantial based on the evidence provided on substantial income increase for project beneficiaries as well as increase in output of selected crops and diversified consumption for project beneficiaries compared to the control groups, though there were some uncertainties about the project’s value added on forming formal market linkages. Efficiency is rated Substantial due to significant economic and operational efficiency. The combined outcome rating is **Satisfactory**.

a. Outcome Rating
 Satisfactory



7. Risk to Development Outcome

The risk to development outcome is rated Substantial.

Political risk. The public goods supported under the project need continued budget allocations beyond the lifetime of the project, there is some risk that public budget may not be available after project completion. Currently, there is a planned follow-up operation on key livestock and agriculture programs. However, unless the Government institutionalizes the project innovations and interventions in its regular programs with sufficient budget support, they may not be sustainable.

Financial Risk: At the enterprise/local levels, for many of the investments under the project growing links with the formal financial sector would be required. Although the financed sub-projects met the financial and technical requirements, they may not meet the requirements of the formal financial intermediaries due to actual and perceived risks.

Climate Risk: Climate risks, such as water availability for horticulture crops and hay farming enterprises / cooperatives, can potentially disrupt the businesses and the links, thus affecting growth opportunities.

8. Assessment of Bank Performance

a. Quality-at-Entry

The project design drew on the lessons learnt under the Sustainable Livelihood Project as well as the work of the Swiss Development Cooperation (Green Gold Project), and U.S. Agency for International Development Mercy Corp business development projects in the Gobi Region. The major lessons learnt related to the need for involvement of private sector, and activities implemented to be demand-driven; inclusion of a service provider to facilitate the partnerships between private sector processors and herder groups; and partnership arrangements between public and private veterinary service providers for effective veterinary services.

Overall, the Results Framework was sound with PDO indicators aligned with operational objectives. Methodologies, frequencies, and responsibilities for data collection to evaluate the achievement of the PDOs were clearly defined and followed through during implementation.

Critical risks on project implementation capacity and sustainability and private sector involvement were adequately identified and the corresponding mitigation measures were integrated in the project design.

Quality at Entry is rated Satisfactory.



Quality-at-Entry Rating

Satisfactory

b. Quality of supervision

The ICR noted that (page 27) regular supervision missions (nine in total) were conducted guided by sufficient attention to solutions to implementation challenges. The supervision missions were candid with the ratings of the project implementation status, for example Moderately Unsatisfactory ratings had been recorded in the early stage implementation to reflect the project delay and issues to be addressed. In general, the World Bank task team maintained a good working relationship with the counterparts throughout the project implementation.

However, according to the ICR page), in the early stages of project implementation, the task team could have been more proactive in coming up with alternative solutions to make up for the lost time, for example, aligning the project implementation plan with the legal agreement and commencing the first household survey to reflect the changed composition of Soums.

Quality of Supervision Rating

Satisfactory

Overall Bank Performance Rating

Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

M&E design was generally in line with the theory of change, outlining how the project activities of each component would contribute to achieving the PDO. The outcome indicators could additionally monitor productivity / yield data, as well as other measures for food security in addition to consumption. Evaluation was envisaged using internal (annual household surveys) and external evaluation -end-line survey. The M&E framework could have also included intermediate outcome indicators to measure the results regarding productivity increases and diversification in live-stock based activities (e.g. change in income from non-livestock activates).

b. M&E Implementation

The day-to-day duties were carried out by an M&E officer at the PIU who worked closely with the Soum coordinator in each Soum. M&E training was provided for the specific monitoring tasks to be fulfilled. Implementation progress and performance were assessed in line with the indicators identified in the Results



Framework and were supplemented by detailed project management reports and financial management reports in a format agreed upon with IDA. Baseline studies, surveys, and impact assessments were carried out for project activities at specified times. Further evaluations were carried out, both internal evaluations and an independent external impact evaluation.

c. M&E Utilization

The M&E system provided timely data and analysis for identifying implementation bottlenecks, while generating evidence for reporting results around the project's results framework. The geo-referencing allowed project management to have an overview of locations for demonstrations, male flocks, nucleus flocks, forage sites, horticulture sites, permanent veterinary yards, and beneficiaries' locations on the map. The annual surveys leveraged the national census data collection methodology during winters to capture incremental data for the critical indicators in the Results Framework.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

The project was categorized as a Category B project in terms of environmental safeguards triggering two safeguard policies: Environmental Assessment (OP 4.01) and Pest Management (OP 4.09). An EMP was prepared and approved by the World Bank before project effectiveness. Overall, the environmental impacts associated with the project were considered limited.

Training on environment safeguards was executed by the PIU specialist and a hired national trainer on two training of trainers (from the TSPs) that trained beneficiaries and training of stakeholders at the national and local levels. Training courses targeted all aspects of liquid and solid waste management under sub-sectors covered by the project in accordance with the EMP to ensure the adequate mainstreaming of environmental protection measures in the development and implementation of subprojects.

Beneficiary entities in meat, dairy, and fiber, whose proposals envisioned certain construction activities were requested to undertake an environmental assessment and only those applicants meeting this requirement were declared eligible for matching grants in addition to eligibility criteria set forth in the Grant Agreement and Grants Manual. A special clause on compliance with the EMP, including a Pest Management Plan was incorporated in Tripartite Agreements signed with each of the beneficiary entities. No usage of pesticides was foreseen and revealed at the nutrition and horticulture subprojects given the limited scale and value of production. Thus, the Pest Management (OP 4.09) safeguard policy was not triggered.



The project did not trigger any social safeguard-related policies. The project did not have a dedicated grievance handling mechanism but leveraged the ministry's own grievance and accountability systems at the Aimag and Soum levels.

The ICR did not explicitly report on safeguard compliance. According to two safeguards assessments carried out in 2016 and 2017 safeguard implementation was rated Satisfactory.

b. Fiduciary Compliance

Financial management. A Financial Management Manual was prepared to guide project implementation. World Bank supervision missions regularly reviewed the project financial management procedures being followed in the project to ensure that fiduciary requirements were being complied with at all levels. Although the World Bank's missions initially noted some financial management weaknesses, such as insufficient and incomplete supporting documents for expenditures and lack of systematic accounting records, the PIU took these issues seriously and remedial actions were taken to resolve the problems. In compliance with fiduciary requirements, the required interim financial reporting and annual audit reports were submitted to the World Bank on time and all the project audits were unqualified.

Procurement. Intensified procurement training sessions were conducted by the World Bank for key staff of the PIU and the ministry and a user-friendly and detailed Project Operational Manual was developed, due to inexperience of the implementing agency and its unfamiliarity with the World Bank's procurement procedures. However, in the initial phase of the project implementation, procurement processing was slow. The reasons were largely frequent changes of the decision-making officials at the ministry. The PIU was staffed with competent members, including a procurement officer. One of the challenges faced was the establishment of different bid evaluation committees for different procurement packages of the project leading to involvement of too many layers in the decision-making process. In some instances, the World Bank had to object to the contract award recommendations because the justifications provided for rejecting the lowest bidders were inadequate. Procurement physical verification and technical compliance reviews were conducted several times during the supervision missions. In all cases, the equipment and machinery inspected were found to be of adequate quality and used for the purposes intended.

c. Unintended impacts (Positive or Negative)

The ICR did not report unintended impacts.

d. Other



Gender: The project developed a Social Participation and Gender Mainstreaming Strategy. It was reviewed and endorsed at a regular PSC meeting in February 2015, before the actual launch of project interventions in the field upon completion of TSPs’ selection and their dispatch to *Soums* for adoption. Orientation training materials in line with the Social Participation Gender Mainstreaming Strategy were developed and disseminated to the project staff, TSPs, local government officials, and other stakeholders.

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Satisfactory	---
Bank Performance	Satisfactory	Satisfactory	---
Quality of M&E	Substantial	Substantial	---
Quality of ICR		Substantial	---

12. Lessons

The ICR provided comprehensive lessons. The most relevant ones follow with some modification of language.

Public-private partnerships can be effectively developed on the areas of animal health and breeding through the use of unique fee-for-service models. The project strengthened the public-private partnership by making targeted cold chain interventions for ensuring timely supply of quality vaccines. Likewise, it developed business models for animal nutrition and animal breeding services (nucleus flocks) for overall improvement in productivity and quality of livestock. Partnership between the Government and the private sector can be done through performance-based contracts or output-based contracts to ensure greater efficiency and wider reach among herders.

Matching grants can serve as effective risk capital instruments for building a productive assets base and making market connections for farmers, cooperatives and agro-processors. Microgrants helped vulnerable households invest in productive assets, thus kick-starting their livelihoods for increasing and diversifying consumption. Cooperatives and private sector enterprises used matching grants to leverage private capital/bank loans to deepen their service offerings and enter into productive partnerships (formal contracts) with herder households. Matching grants could be institutionalized under the Government’s own program for incentivizing local governments and private sector for achieving higher productivity and unit value realization in the livestock sector development.

Collaborative research initiatives in terms of research, innovation, and knowledge transfer through extension can contribute to the enhancement of market competitiveness and may also improve access to markets. The project experience revealed that public extension system has nearly collapsed in the country. The Government needs to expand and strengthen the local extension service delivery system for systematic research dissemination and adoption, particularly, in areas relating to climate-smart farming,



production/processing, and affordable water. Risk reduction initiatives and eco-system services are needed to mitigate risks of extreme weather.

A PIU integrated with implementation structures of national programs for livestock and animal health can create opportunities for sustaining and mainstreaming project achievements. The strategic leadership of the project embedded in the Ministry of Food Agriculture and Light Industry with the PIU providing technical support for certain critical functions and enhancing capabilities for innovative delivery can be helpful to mainstream the project activities.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR was comprehensive and included a good formulation of lessons. However, the ICR had weaknesses regarding quality of evidence and analysis in general. For example the following points that could better explain achievements were not sufficiently described in the ICR: (i) The ICR did not provide adequate information on type of specific support provided by the project and actual description of market linkages formed with the exception of a meat exporter; (ii) types and amounts of grants per beneficiary and areas those grants used for; (iii) selection criteria and process used for selecting beneficiaries.

a. Quality of ICR Rating

Substantial