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INTERNATIONAL DEVELOPMENT ASSOCIATION
AND
INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED CREDIT
IN THE AMOUNT OF US\$120 MILLION EQUIVALENT
AND A
PROPOSED LOAN
IN THE AMOUNT OF US\$30 MILLION EQUIVALENT
TO THE
REPUBLIC OF UZBEKISTAN
FOR A
LIVESTOCK SECTOR DEVELOPMENT PROJECT

June 2, 2017

Agriculture Global Practice
Europe and Central Asia Region

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CURRENCY EQUIVALENTS
(Exchange Rate Effective April 30, 2017)

Currency Unit = Uzbekistan Soum (UZS)

UZS 3,705= US\$1

US\$0.27= UZS 1,000

FISCAL YEAR
January 1 - December 31

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
AMR	Antimicrobial Resistance
CAAP	Central Asia Agri-Finance Project
CGIAR	Consultative Group on International Agricultural Research
CPF	Country Partnership Framework
DA	Designated Account
DC	Direct Contracting
EA	Environmental Assessment
ECA	Europe and Central Asia
EIA	Environmental Impact Assessment
ECAPDEV	Europe and Central Asia Region Capacity Development
ERR	Economic Rate of Return
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FM	Financial Management
FMS	Financial Management Specialist
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GoU	Government of Uzbekistan
GP	Global Practice
GRS	Grievance Redress Service
GRM	Grievance Redress Mechanism
ha	Hectare
HACCP	Hazard Analysis at Critical Control Point
HDP	Horticulture Development Project
ICB	International Competitive Bidding
IFAD	International Fund for Agricultural Development
IFI	International Financial Institution
IFR	Interim Financial Report
IFC	International Finance Corporation
ILO	International Labour Organization

IMF	International Monetary Fund
ILRI	International Livestock Research Institute
LSA	Livestock Sector Analysis
LSDP	Livestock Sector Development Project
LSS	Livestock Sector Strategy
LSIPT	Livestock Sector Investment and Policy Toolkit
MAWR	Ministry of Agriculture and Water Resources
M&E	Monitoring and Evaluation
MoE	Ministry of Economy
MoF	Ministry of Finance
NPV	Net Present Value
NCB	National Competitive Bidding
OIE	<i>Organisation Internationale des Épizooties</i> (World Organization for Animal Health)
PAD	Project Appraisal Document
PDO	Project Development Objective
PFI	Participating Financial Institution
PIP	Project Implementation Plan
PIU	Project Implementation Unit
POM	Project Operational Manual
PP	Procurement Plan
PVS	Performance of Veterinary Services
RFP	Request for Proposal
RESP	Rural Enterprise Support Project
RESP II	Second Rural Enterprise Support Project
RRA	Rural Restructuring Agency
SCD	Systematic Country Diagnostic
SME	Small and Medium Enterprise
SOE	Statement of Expenditures
TA	Technical Assistance
TOR	Terms of Reference
US\$/USD	United States Dollar
UZS	Uzbekistan Soum
VCD	Value Chain Development

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Task Team Leader(s): Olivier Durand, Peter Goodman



Note to Task Teams: The following sections are system generated and can only be edited online in the Portal.

BASIC INFORMATION

Is this a regionally tagged project?	Country(ies)	Financing Instrument
No		Investment Project Financing

☐ Situations of Urgent Need of Assistance or Capacity Constraints

☒ Financial Intermediaries

☐ Series of Projects

Approval Date	Closing Date	Environmental Assessment Category
23-Jun-2017	30-Jun-2022	B - Partial Assessment

Bank/IFC Collaboration	Joint Level
Yes	Complementary or Interdependent project requiring active coordination

Proposed Development Objective(s)

The Project Development Objective (PDO) is to improve livestock productivity and access to market in selected regions.

Components

Component Name	Cost (US\$, millions)
Public Investment Framework and Public Services	9.00
Livestock Value Chain Modernization	221.10
Project Coordination, Management and Monitoring and Evaluation	6.40

Organizations

Borrower :	Republic of Uzbekistan
Implementing Agency :	Rural Restructuring Agency under the Ministry of Agriculture and Water Resources



PROJECT FINANCING DATA (IN USD MILLION)

<input checked="" type="checkbox"/> Counterpart Funding	<input checked="" type="checkbox"/> IBRD	<input checked="" type="checkbox"/> IDA Credit <input type="checkbox"/> Crisis Response Window <input type="checkbox"/> Regional Projects Window	<input type="checkbox"/> IDA Grant <input type="checkbox"/> Crisis Response Window <input type="checkbox"/> Regional Projects Window	<input type="checkbox"/> Trust Funds	<input checked="" type="checkbox"/> Parallel Financing
Total Project Cost: 236.50		Total Financing: 236.50 Of Which Bank Financing (IBRD/IDA): 150.00		Financing Gap: 0.00	

Financing (in US\$, millions)

Financing Source	Amount
Borrower	33.30
EC: European Commission	16.00
International Bank for Reconstruction and Development	30.00
International Development Association (IDA)	120.00
LOCAL: BENEFICIARIES	37.20
Total	236.50

Expected Disbursements (in US\$, millions)

Fiscal Year	2017	2018	2019	2020	2021	2022
Annual	0.00	9.69	21.91	37.95	43.02	37.43
Cumulative	0.00	9.69	31.60	69.55	112.57	150.00



INSTITUTIONAL DATA

Practice Area (Lead)

Agriculture

Contributing Practice Areas

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

Gender Tag

Does the project plan to undertake any of the following?

a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF

Yes

b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment

Yes

c. Include Indicators in results framework to monitor outcomes from actions identified in (b)

Yes

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● Substantial
2. Macroeconomic	● Substantial
3. Sector Strategies and Policies	● Substantial
4. Technical Design of Project or Program	● Low
5. Institutional Capacity for Implementation and Sustainability	● Low
6. Fiduciary	● Moderate
7. Environment and Social	● Moderate
8. Stakeholders	● Low



9. Other

10. Overall

● Moderate

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

☐ Yes ☒ No

Does the project require any waivers of Bank policies?

☐ Yes ☒ No

Safeguard Policies Triggered by the Project

Yes

No

Environmental Assessment OP/BP 4.01

✓

Natural Habitats OP/BP 4.04

✓

Forests OP/BP 4.36

✓

Pest Management OP 4.09

✓

Physical Cultural Resources OP/BP 4.11

✓

Indigenous Peoples OP/BP 4.10

✓

Involuntary Resettlement OP/BP 4.12

✓

Safety of Dams OP/BP 4.37

✓

Projects on International Waterways OP/BP 7.50

✓

Projects in Disputed Areas OP/BP 7.60

✓

Legal Covenants

Sections and Description

Schedule 2, Section I, A.1. Institutional Arrangements.

For the purposes of overall Project management, implementation and coordination the Borrower/Recipient shall maintain the RRA until completion of the Project, with staff, resources and terms of reference satisfactory to the Bank/Association and adequate for successful implementation of the Project.

Sections and Description

Schedule 2. Section I, F. Safeguards.



The Borrower/Recipient, through RRA, shall ensure that the Project, including Sub-projects under Part B.1 of the Project, is implemented pursuant to the provisions of the Environmental and Social Management Framework, and a site specific Environmental Management Plan, if/when necessary, in a manner satisfactory to the Bank/Association and shall provide the Bank/Association with a summary status of the implementation, including results from environmental monitoring, as part of Project Reports or when specifically requested by the Bank.

Sections and Description

Schedule 2. Section I, E.1 Third Party Monitoring and Feedback Mechanism.

1. The Borrower/Recipient shall carry out the Project in compliance with this Agreement, appropriate social standards and practices and any applicable laws and regulations on child and/or forced labor, including such compliance by PFIs and Beneficiaries, and shall, at the beginning of the cotton harvesting season during each year of the Project implementation, instruct any involved local authorities to ensure strict compliance with such laws and regulations while organizing cotton harvesting.

Sections and Description

Schedule 2. Section I, E.2 Third Party Monitoring and Feedback Mechanism.

2. The Borrower/Recipient shall take all necessary actions, and ensure that necessary actions are taken, to enable the TPM Consultant to perform monitoring activities in accordance with the applicable terms of reference, including, but not limited to allowing and facilitating for the TPM Consultant to visit sites where the Project is being carried out, collect relevant data and communicate with Project stakeholder and participants.

Sections and Description

Schedule 2. Section I, E.3 Third Party Monitoring and Feedback Mechanism.

3. The Borrower/Recipient shall: (a) review and discuss with the Bank/Association monitoring reports prepared by the TPM Consultant; and (b) promptly take any actions, as may be requested by the Bank/Association upon its review of said reports, with respect to compliance with the undertakings relating to child and/or forced labor as set forth in this Agreement and the Project Operational Manual.

Sections and Description

Schedule 2. Section I, E.4 Third Party Monitoring and Feedback Mechanism.

4. The Borrower/Recipient: (a) shall and shall cause respective local authorities to fully collaborate with the TPM Consultant in developing an effective grievance redress mechanism in connection with the Project activities, as set forth in the TPM Consultant's terms of reference; (b) shall review biannual reports of the TPM Consultant on grievances received, redress mechanism and any feedback provided; and (c) shall promptly implement or cause relevant local authorities to implement the recommendations provided in said reports.

Conditions



Type	Description
Effectiveness	<p>Article V 5.01 of the Financing Agreement</p> <p>(a) the Project Operational Manual, including the Credit Line Investment Guidelines, has been adopted by the Recipient in a form and substance satisfactory to the Association;</p> <p>(b) the Loan Agreement has been executed and delivered and all conditions precedent to its effectiveness or to the right of the Recipient to make withdrawals under it (other than the effectiveness of this Agreement) have been fulfilled; and</p> <p>(c) the implementation capacity of RRA has been strengthened by employment of additional financial management, procurement and safeguard specialists, and by updating of its accounting software in accordance with the technical requirements and specifications set forth in the Project Operational Manual.</p> <p>Article V 5.01 (b) of the Loan Agreement</p> <p>(b) the Financing Agreement has been executed and delivered and all conditions precedent to its effectiveness or to the right of the Borrower to make withdrawals under it (other than the effectiveness of this Agreement) have been fulfilled.</p>

PROJECT TEAM

Bank Staff

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Note to Task Teams: End of system generated content, document is editable from here.



**UZBEKISTAN
LIVESTOCK SECTOR DEVELOPMENT PROJECT**

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I. STRATEGIC CONTEXT

A. Country Context

1. **The Government's vision is to transform Uzbekistan into an industrialized middle-income country by 2050.** Uzbekistan is a lower-middle-income, energy-rich, and doubly landlocked Central Asian country with a population of 31.1 million, the largest in Central Asia. Economic growth has been robust, averaging about eight percent annually since 2000 and contributed to a decline in the poverty rate from 27.5 percent in 2001 to 12.5 percent in 2016.

2. **Achieving middle-income status will require a more sustainable and inclusive growth model.** While Uzbekistan's economic performance, including its resilience to external shocks during the global economic downturn, has been impressive, there are concerns about the sustainability of economic growth. Growth is determined by the state rather than private sector investment, vulnerable to commodity price shocks, driven by large natural resource endowments rather than their efficient utilization, and characterized by low levels of energy and water use efficiency.

3. **Four challenges to achieving more sustainable and inclusive growth are job creation, economic diversification, natural resource use efficiency, and greater regional equity.** This means (a) creating jobs for the half a million youth joining the job market annually and returning migrants, (b) diversifying the economy to reduce exposure to commodity price shocks and earn foreign exchange, (c) increasing the efficiency of energy and water use in agriculture and industry, and (d) ensuring a more equitable distribution of economic opportunities across regions and income groups.

4. **Transformation of the agro-food sector including through diversification in livestock and horticulture production and processing is a means of addressing these four challenges.** The Systematic Country Diagnostic (SCD) identifies three groups of priorities for supporting economic transformation: (a) private sector growth, (b) agricultural competitiveness and cotton sector modernization, and (c) public service delivery. Item (b) includes two objectives: (i) facilitating a market-led modernization of the cotton subsector to increase productivity including measures to prevent forced labor and (ii) diversifying agriculture toward higher-value, more labor-intensive, and less water-intensive crops.

5. **In this context, the Government has requested the World Bank to support the development of a private-sector-led livestock sector** that will contribute to job creation, economic diversification, water use efficiency, and more equitable economic growth.

B. Sectoral and Institutional Context

Agricultural Sector Structure, Performance, and Policy Framework

6. **The restructuring of the agricultural sector after the breakup of the Soviet Union resulted in a dual farm structure and dual policy framework.** Larger private farms dominate wheat and cotton, subsectors that are highly controlled by the Government. Smallholder farmers¹ dominate horticulture and livestock subsectors that are much less controlled by the Government.

¹ Smallholder farmers include informal farming households and legally registered small farming enterprises (*dehkan*).



7. **The conversion of state-owned cooperatives (*shirkats*) between 2002 and 2007, resulted in 75,000 private farms, with land under 30–50-year leases.** Private farms utilize 5.8 million ha of state-leased land with an average farm size of 75 ha. These farms are subject to cotton and/or wheat production quotas that require them to allocate a defined area of land to these crops. The provision of credit, input, and output markets for cotton and wheat are partly administered by the Government.
8. **There are 4.7 million smallholder farmers with land plots of 0.35–0.5 ha and largely based on household labor.** They are not subject to control by the Government. While they use less than 15 percent of arable land, their share of livestock production has increased to more than 90 percent of output as they own 80 percent of cattle and 60 percent of poultry.
9. **There are also over 100 karakul sheep *shirkats* and a small number of cattle *shirkats* remaining in higher rainfall pasture areas** but the Government plans to reorganize most of these through auction in 2017. The karakul *shirkats* are important because they control large areas of arid rangeland mainly in the northwest of the country.
10. **Crop output growth has been driven by yield and output price increases in non-cotton crops dominated by smallholder farms.** Agricultural output grew by 8 percent from 2003 to 2013 with 60 percent of output generated from crop production and 40 percent from livestock. Crop output growth which grew between 12 percent and 30 percent during this period was driven by rising real prices and rising crop yields for non-cotton crops dominated by smallholder farmers. Livestock output growth from 2003 to 2013² was largely driven by a rise in the number of cattle and sheep/goats which increased by 63 percent and 60 percent, respectively during this period rather than increased productivity. Milk and meat yields only increased slightly during this period.
11. **Cotton and wheat production quotas severely restrict fodder production and constrain livestock productivity.** Cotton and wheat dominated by private farms represent 70 percent of the cultivated land but less than 20 percent of agricultural output. Some partial liberalization in wheat production and marketing led to a dramatic wheat yield increases. The current tax and subsidy system offers poorly remunerative prices to farmers for cotton which limits its profitability and consequently cotton yields have been stagnant. Fodder represents only five percent of private farmland use and there is inadequate supply of fodder. Since 2006, private livestock farms with at least 30 heads of animal unit cattle have been allocated an additional 0.45 ha of arable land per animal head for fodder production. In 2015, the Government reallocated 170,000 ha of cotton/wheat land to other crops, including fodder production, to help address the lack of fodder.

Livestock Sector: Fundamental Constraints to Development and Externalities

12. **The geographic distribution of a diverse range of livestock production systems is largely determined by proximity to population centers and agro-ecological zones** (see Table 1.1). Dairy production is concentrated in irrigated areas closest to urban centers and beef production is mostly concentrated in low mountain pastures. Small ruminants which are used for meat, as well as skins and wool, are raised in semiarid and desert locations in the west, where horse and camel rearing is also observed; karakul sheep rearing is important here and dominated by *shirkats*. Small family poultry

² Output growth was 71 percent for milk, 54 percent for beef, and 101 percent for lamb.



production is observed countrywide but medium- and large-scale industrial poultry production units are developing near urban centers.

13. **While not unique to the livestock sector,³ foreign exchange convertibility, access to cash, and heavy regulation of private investment are key obstacles to investment.** Access to finance is an overarching constraint at both producer and processor level, as described below. The underlying causes of weak access to finance lie in (a) the macro-economy and cross-sectoral investment climate; (b) the financial sector which is undercapitalized, has inadequate liquidity, and is insufficiently independent; and (c) the agricultural sector where production risks are perceived as being high, transaction costs of lending to small livestock producers are high, collateral is insufficient, and supply chain finance is inadequate. High demand for credit suggests that the credit market is constrained on the supply side and not on the demand side.

14. **Productivity in the livestock sector is constrained by a combination of factors including animal health, animal feeding, and genetics.** Animal health is constrained by weaknesses in public and private veterinary services and exacerbated by poor animal feeding. Animal feeding is constrained by limited land availability for fodder and the abandonment of cotton/fodder crop rotations, degradation of pastures, and the limited availability of concentrate feed. Animal genetics is constrained by weak breeding at farm level, inadequate artificial insemination infrastructure, and the loss of local genetics adapted to Uzbekistan's climate. Government efforts to address some of these constraints have included tax exemptions, input subsidies, additional veterinary services, and lower interest loans for purchase of livestock.

15. **Value addition in the livestock sector is constrained by trade policies, high transaction costs of working with smallholder farmers, and inadequate food safety compliance.** Value addition through processing is constrained by export restrictions for poultry and meat. These are aimed at improving self-sufficiency but create disincentives to exporters. Recent reforms including more flexible export/import licensing have started to address this constraint. A further constraint is the high transaction costs to processors working with a large number of small producers. This is due to limited farmer-farmer and farmer-buyer cooperation, insufficient marketing infrastructure, and limited supply chain finance to producers. Finally, inadequate food safety compliance in agro-processing undermines competitiveness in both high-end urban domestic markets and export markets.

C. Higher Level Objectives to which the Project Contributes

16. **The project contributes to job creation, less intensive water use, economic diversification, and more equitable growth.** The project is aligned to the Government's long-term outcomes as spelled out in the Uzbekistan Development Strategy for 2017–2021: diversification of the economy; developing competitive value chains on domestic and export markets; stimulating job creation; reaping economic benefits; and developing viable, sustainable, and climate-resilient farming systems. These objectives are well aligned with the World Bank's goals of growth, shared prosperity, and poverty reduction while promoting agriculture sustainability and climate change resilience. This is also in line with the Agenda for Change of the European Union (EU) Development Policy which aims at reducing poverty, including through a more targeted allocation of funding and concentration on fewer sectors which are key for long-term sustainable and inclusive growth.

³ Uzbekistan SCD 2016.



17. **The project is included in and aligned with the Uzbekistan Country Partnership Framework (CPF) 2016–2020 (Report 105771-UZ).** The project will contribute to the poverty reduction and shared prosperity objectives of the CPF by improving incomes and food security of low-income rural households and creating employment opportunities for the bottom 40 percent households by generating off-farm jobs and increasing livelihood opportunities for rural people, including women. The project will also diversify agriculture toward higher-value, more job-intensive, and less water-intensive productions; strengthen private sector access to finance and financial services; and increase private investment and job creation in agribusiness.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

18. The Project Development Objective (PDO) is to improve livestock productivity and access to market in selected regions.

B. Project Beneficiaries

19. **The primary project beneficiaries are smallholder farmers (farming households and *dehkan*) and private farms and firms engaged in livestock production and processing.** In the public sector, the project will support institutional strengthening of the Ministry of Agriculture and Water Resources (MAWR); the Livestock, Poultry, and Fishery State Research Institute; and the State Veterinary Services. Secondary beneficiaries anticipated to benefit include (a) participating financial institutions (PFIs) through improved skills and financial products; (b) all livestock producers through training and dissemination of modern technologies and husbandry practices, access to better animal health and advisory services; and (c) the general public and consumers through improved zoonotic disease control, food safety, and quality of animal products.

20. **The project will pay particular attention to the inclusion of smallholder farmers into modern value chains.** Livestock production is a major livelihood support system and a social safety net for 49 percent of the population or 15.3 million people who live in rural areas. Therefore, modernizing livestock value chains will also provide job opportunities in rural areas where most of the bottom 40 percent of the income distribution live. Organizing smallholder farmers and aggregating their production through contractual arrangements with large private farms and agro-processors will facilitate access to markets for many of these rural households.

21. **Integrating smallholder farms into modern supply chains will increase job and income opportunities for women.** Gender disparities of labor remain significant across various sectors in Uzbekistan. The participation of women in agriculture has increased consistently and currently equals that of men.⁴ Women are increasingly expressing strong interest in horticulture and livestock, which offer reliable and substantial income opportunities. Production activities such as poultry and dairy are financially beneficial and socially acceptable for women (other activities in the agriculture sector are often deemed difficult and inappropriate for women).

⁴ State Committee on Statistics. From the World Bank's Diagnostic Study of Barriers for Strengthening Livelihood of Low-Income Rural Women in Uzbekistan.



C. PDO-Level Results Indicators

22. **Achievement of the PDO will be assessed by measuring the increase in productivity and sales for selected dairy and cattle production systems.** The project is expected to generate a 15 percent increase in productivity and in sales for direct project beneficiaries. As part of citizen engagement, a PDO-level indicator will monitor beneficiaries' satisfaction with the process of engagement in project activities. The project is expected to generate climate change cobenefits and the intermediate indicators will monitor the percentage of sub-loans, as well as Grant-funded research programs and productive partnerships, that include climate change mitigation and adaptation activities. The project will also monitor the following core indicators: (a) farmers reached with agricultural assets or services (disaggregated by gender) and (b) farmers who have adopted an improved technology promoted by the project (with a focus on climate-smart agriculture and livestock emission reduction). Through lending to agro-processors, private farms, and groups of smallholder farmers, the project is expected to reach an estimated number of 35,000 direct and indirect beneficiaries in the livestock sector. The detailed Results Framework is presented in section VII.

III. PROJECT DESCRIPTION

A. Project Components

23. **The project design includes three components, two that address the constraints to livestock sector development, and third that addresses project management.**

Component 1: Livestock Sector Public Investment Framework and Public Services (US\$2 million IDA, US\$5 million EU)

24. **Subcomponent 1.1: Strategy, Policy, and Public Investment Framework** (US\$2 million EU) will finance technical assistance (TA) for (a) the preparation of a 15-year sector modernization strategy and a 5-year investment plan, including required climate change mitigation and adaptation policy incentives and investments; (b) capacity strengthening of MAWR staff for sector analyses, budget and policy formulation, and monitoring and evaluation (M&E); (c) establishment of a platform for public-private policy dialogue; and (d) studies on policy and the regulatory framework, value chain development (VCD), and market analyses.

25. **Subcomponent 1.2: Strengthening Livestock Sector Public Services** (US\$2 million IDA/US\$3 million EU)

- (a) **Activity 1.2.1: Veterinary Services Improvement** (US\$2 million IDA) will finance (a) TA to improve the legal framework and strategy for development of the veterinary services; (b) training and equipment to selected public veterinary agencies to improve disease surveillance and reporting systems, veterinary diagnostics laboratories and standard operating procedures, vaccine storage and distribution facilities, public awareness, and rapid response capacity; (c) minor works and equipment for rehabilitation of selected public veterinary facilities; and (d) studies on border control and quarantine and veterinary drug regulation and on animal identification, registration, and movement control. The performance of veterinary services (PVS) evaluation and gap analysis to be carried out by



the World Organization for Animal Health (*Organisation Internationale des Épizooties*, OIE)⁵ will provide a detailed plan of investment in veterinary services.

- (b) **Activity 1.2.2: Fodder Seed Improvement** (US\$1 million EU) will finance minor works, equipment, training, and TA to strengthen national-level agencies and state seeds farms undertaking plant breeding, variety testing, selection and listing, seed inspection, testing and certification of fodder crop seeds, and production of elite seed. The project will stimulate the selection and dissemination of drought- and heat-tolerant fodder crop varieties to help livestock producers adapt to the anticipated climate change risks.
- (c) **Activity 1.2.3: Market-Led Technology Generation and Dissemination** (US\$2 million EU) will finance subproject grants for the generation and dissemination of innovative technologies (including for fodder crop, pasture improvement, livestock health, feeding, husbandry and breeding, traceability, and certification) selected through calls for proposals from research institutions, universities, or the private sector. Priority will be given to research which (a) promotes climate change mitigation and adaptation technologies, (b) promotes more efficient natural resource management especially more efficient water use and reduced erosions of soils and pastures, and (c) addresses regional or global human and animal health issues such as antimicrobial resistance (AMR). Selection and prioritization criteria for research and dissemination subprojects will be defined in the Project Operational Manual (POM).

Component 2: Livestock Value Chain Modernization (US\$112.8 million IDA, US\$30 million IBRD, and US\$11 million EU)

26. Component 2 will address access to market and access to finance constraints including through (a) providing access to finance from PFIs through a credit line and (b) VCD subprojects that build productive partnerships between value chain actors. This component will have a strong emphasis on supporting the integration of small producers into value chains.

27. **Subcomponent 2.1: Credit Line for Private Investments** (US\$112.8 million IDA and US\$30 million IBRD). The project will address the lack of long-term financing for the livestock sector by providing funding with a maturity of up to 20 years to the banking sector to be revolved in the PFIs.

28. The component will finance (a) a credit line to PFIs for provision of working capital and investment finance to the livestock sector nationwide (among others, for farming, marketing, distribution, and processing) and (b) training and TA for PFIs on sector-specific loan product development, loan appraisal, and monitoring in the livestock sector. Lending by the PFIs will be demand based. Lending may include cofinancing for VCD subprojects under Subcomponent 2.2. Key terms and conditions of the credit line are detailed in annex 1 and in annex 5 on Financial Intermediary Financing Compliance Note. Credit Line Investment Guidelines will be prepared and will determine the eligible activities, subloan evaluation criteria, detailed withdrawal procedures, and responsibilities of all parties. The project will give priority to investments that provide climate change cobenefits, and at least 50 percent of sub-loans should include climate change mitigation (animal waste management, biodigesters,

⁵ To be carried out in June 2017 under the Europe and Central Asia Region Capacity Development Project preparation Grant.



pasture management, energy saving, and so on) or adaption activities (drought- and heat-resistant fodder crop varieties and breeds, water savings, renewable energy, and so on).

29. **Subcomponent 2.2: Value Chain Development and Smallholder Market Inclusion** (US\$11 million EU) will finance (a) TA for facilitating the establishment of productive partnerships between value chain actors (producers, buyers, and service providers); (b) VCD subproject preparation, supervision, M&E; and (c) grants for VCD subproject investments. Provisionally, it is envisaged that 40 VCD subprojects will be supported with an average cost ranging between US\$100,000 and US\$500,000. Criteria for subprojects will be that they (a) link small producers to buyers; (b) comprehensively address constraints along value chains; (c) are market led and based around commercial opportunities; and (d) finance primarily public goods (such as collective equipment for farmers' cooperatives; purely individual private goods would be financed from participants' equity or the credit line under Subcomponent 2.1) and include emission reduction and climate-smart investments.

30. Subprojects are envisaged to include (a) TA for farmer training and advisory services on all aspects of animal husbandry, fodder crop and pasture management, and marketing—this would include training targeted to the needs of women involved in livestock production; (b) works and collectively used equipment for farm infrastructure including housing, handling and storage, waste management, and biogas facilities; (c) works for construction or improvement of communally utilized storage and distribution infrastructure; and (d) equipment, works, and TA for farms and agro-processors for food safety upgrading or adoption and demonstration of innovative technology.

Component 3: Project Coordination, Management, and Monitoring and Evaluation (US\$5.2 million IDA)

31. Component 3 will finance (a) project management, including coordination and supervision of the implementation, financial management (FM), procurement, M&E, and Grievance Redress Mechanism (GRM); (b) impact assessments at midterm review and before project closure; and (c) training of project beneficiaries on safeguards requirements and awareness raising campaigns on labor practices in agriculture.

B. Project Cost and Financing

32. **A request for an EU Grant of €15 million (US\$16.0 million equivalent as of April 30, 2017) has been submitted to the EU to finance Subcomponents 1.1, 1.2 (Activities 1.2.2 and 1.2.3), and 2.2.** The EU Delegation in Tashkent participated in the project design and appraisal. It is expected that the Grant will be approved before the end of 2017 and would be transferred to the World Bank for implementation by the Rural Restructuring Agency (RRA) as a Recipient-Executed Trust Fund, following the World Bank's standard procedures. If for any reason the EU financing does not materialize, the GoU will undertake appropriate steps to identify alternative sources of finance. Table 2 summarizes the project's financing plan, including the Government's and beneficiaries' contributions.



Table 1. Project Cost and Financing

Project Components	Project Cost (US\$, millions)	IBRD (US\$, millions)	IDA (US\$, millions)	EU Grant (US\$, millions)	GoU (US\$, millions)	Beneficiaries
Component 1: Livestock Sector Public Investment Framework and Public Services	9.0	—	2.0	5.0	2.0	—
1.1: Strategy, Policy, and Public Investment Framework	2.4	—	—	2.0	0.4	—
1.2: Strengthening Livestock Sector Public Services	6.6	—	2	3.0	1.6	—
1.2.1: Veterinary Services Improvement	2.9	—	2	-	0.9	—
1.2.2: Fodder Seed Improvement	1.3	—	—	1.0	0.3	—
1.2.3: Market-Led Technology Generation and Dissemination	2.4	—	—	2.0	0.4	—
Component 2: Livestock Value Chain Modernization	221.1	30	112.8	11	30.1	37.2
2.1: Credit Line for Private Investments	205.4	30.0 ^a	112.8 ^b	—	27.9	34.7
2.2: Value Chain Development and Smallholder Market Inclusion	15.7	—	—	11	2.2	2.5
Component 3: Project Coordination, Management, and Monitoring and Evaluation	6.4	—	5.2	—	1.2	—
Total Costs	236.5	30.0	120.0	16.0	33.3	37.2

Note: a. Including US\$75,000 for IBRD front-end fee.

b. Including US\$500,000 for training and technical assistance to PFIs.

C. Lessons Learned and Reflected in the Project Design

33. Combine improved enabling environment, VCD, and access to finance and advisory services. Based on the experience of successful agribusiness projects, the project will deliver a combination of strategy and policy development, strengthening of public services, and advisory and financial support for farms and enterprises. The project will also adopt a holistic value chain approach and facilitate the establishment of productive partnerships involving producers, processors, and service providers along value chains learning from the experience of productive alliances and VCD in Latin America and Asia. Experience worldwide also demonstrates that financial support to farmers is optimized when used in conjunction with advisory and business development services. This approach will be offered by the project, using the EU Grant.

34. Rely on market signals to comprehensively address the constraints faced by producers, processors, and service providers. The experience of the recently completed Second Rural Enterprise Support Project (RESP II) in Uzbekistan shows that interventions to support the private sector and the development of commercial agriculture are likely to be successful if they are based on the identification and assessment of market opportunities and competitiveness. Supply chain development must be private sector led, with public interventions aimed at helping the private sector overcome critical constraints and market failures. The approach needs to be bottom up, with active engagement of



various stakeholders, and interventions must be driven by financially viable subprojects promoted by private sector and professional organizations for the given supply chain.

35. Ensure voluntary participation of commercial banks and allow for independent identification of borrowers and appraisal of investments. The design of the project credit line is based on the successful experience of the Rural Enterprise Support Project (RESP) and its additional financing. The PFIs made independent lending decisions, within the agreed eligibility frameworks and guidelines. In addition, the PFIs received training on how to do a proper appraisal of various types of subfinancings. Under the RESP, this approach ensured the high quality of the subfinancing portfolio, the successful implementation of more than 560 investment proposals by small and medium enterprises (SMEs), and a repayment rate close to 100 percent.

36. Mitigate the use of child and forced labor under the investments supported by the credit line. Labor practices in the agricultural sector in Uzbekistan have raised concerns in recent years, therefore the project includes mitigation. Livestock production and processing do not require a high level of labor and the risk of large-scale mobilization of workers, as observed for cotton harvest, is extremely limited. Nevertheless, to mitigate any residual risk, the project will replicate the approach of the RESP and Horticulture Development Project (HDP) by organizing awareness raising sessions for beneficiaries on the applicable legislation and regulation on child and forced labor and will condition the approval of subloan applications under the credit line to a commitment from borrowers to remain in compliance with the national regulation on labor practices.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

37. Project management will be under the responsibility of the RRA, MAWR's specialized agency which has extensive experience in implementing donor-funded projects. It has implemented the World Bank-funded RESP I and II in the past and is currently implementing the HDP, with proven capacity to comply with World Bank fiduciary and safeguards policies. The RRA will recruit a fully dedicated team comprising a coordinator, fiduciary and legal staff, technical specialists, environmental and social safeguards, and M&E specialists. The agency will establish regional branches to ensure closer supervision of project implementation in the field. PFIs will be responsible for the implementation of the credit line and will be selected based on due diligence to be carried out by international consultants in collaboration with the RRA. Selection of recipients for the credit line, appraisal of subprojects, and execution of disbursement of loans will be the responsibility of the PFIs and will be reviewed by the RRA and the World Bank. The POM, to be prepared by project effectiveness, will include (a) the project's overall operating and decision-making procedures, (b) the FM and procurement procedures, (c) results monitoring arrangements and reporting requirements, (d) a Credit Line Investment Guidelines, and (e) a Grant Operational Manual.

B. Results Monitoring and Evaluation

38. A baseline survey will be carried out before project effectiveness and repeated at midterm and before project closure, as a basis for monitoring impact. M&E activities will be managed by the RRA central office, including aggregation of information from PFIs on implementation, results, and impact in the field; reporting on findings and ensuring that these results are reflected in semiannual and



annual progress reports; and reporting on the GRM. RRA's M&E specialist will regularly collect information and data directly from project beneficiaries to monitor progress in the performance of their production, processing and marketing activities. In addition, a dedicated Safeguards Officer will monitor and evaluate the implementation of environmental and social safeguard requirements of the project.

C. Sustainability

39. **Climate change, including higher temperatures and more variable precipitation,⁶ could adversely affect livestock productivity, altering feed intake, mortality, growth, and reproduction.** Average precipitation is likely to increase and could have a positive impact on grassland and alfalfa productivity. Rainfall variability could, however, affect water availability for irrigation, while irrigation needs for fodder production may increase because of higher temperatures.

40. **The project generates externalities including those relating to climate change, water availability and quality, and human health.**

- (a) The livestock sector is a major greenhouse gas (GHG) emitter including methane, nitrous dioxide, and carbon dioxide from enteric fermentation in ruminants and animal waste. Beef and dairy cattle are the largest emitters. Emissions from the livestock sector can be reduced through improved genetics, feeding, and waste management, including biogas.
- (b) Pastures contribute to carbon sequestration that can be increased through improved soil management, pasture management, and varietal selection.
- (c) Irrigation water availability can be improved by cropping decisions that recognize the real cost of water and water use efficiency investments. Water quality is affected by livestock waste management practices.
- (d) Human health and nutrition is affected by the livestock sector through multiple pathways, including consumer diets,⁷ food safety, zoonotic diseases, and increased AMR due to antibiotic use in livestock production.

41. **The project will address externalities relating to climate change, water availability and quality, and human health through (a) development of an improved strategy, policy framework, and investment plan; (b) research and innovation; and (c) value chain subprojects.** The project will help develop a strategy, policy framework, and investment plan for the livestock sector that will provide incentives and public goods to address externalities under Subcomponent 1.1. The project will provide TA on environmental valuation tools to cost externalities, so that policy and investment decisions are driven by environmental as well as economic costs and benefits. Examples of applying environmental valuation to public policy and investment decision include applying a real economic value to water in appraising investments in irrigated fodder, valuating carbon sequestration from pasture improvement investments, and valuing human health costs when appraising food safety and zoonotic disease control investments. The project will prioritize innovative technology proposals (under Subcomponent 1.2.3) and VCD subproject proposals (under Subcomponent 2.2) that contribute to climate change mitigation

⁶ World Bank. 2013. Reducing the Vulnerability of Uzbekistan's Agricultural Systems to Climate Change.

⁷ The average intake of protein of animal origin being 27 g per capita per day compared to the recommended value of 40 g.



and adaptation. It will foster the adoption of heat- and drought-tolerant fodder crop varieties and livestock breeds and improved water use efficiency.

D. Role of Partners

42. **The EU is the main partner of the project and is expected to provide a Grant of €15 million (US\$16 million equivalent).** In line with the strategic orientations of the EU 2014–2020 Multiannual Indicative Program agreed with the Government, it is expected that the EU Grant will add value to project's activities by facilitating access to markets for smallholder farmers through their inclusion into modern value chains and productive partnerships with aggregators and agro-processors. The EU Grant is also expected to support technology generation and dissemination and value chain coordination.

43. **The International Finance Corporation (IFC) is actively engaged in the dairy sector in Central Asia where its experience confirms that accessing an IDA-funded credit line is critical for smallholder farmers to improve dairy productivity and quality and gain market access through dairy aggregators and processors.** Obtaining legal status is, however, an important prerequisite for small farmers to engage in formal contracting with commercial banks and agro-processors. As such, the project will closely coordinate with the IFC Central Asia Agri-Finance Project (CAAP) which aims to improve access to finance for farmers and other value chain participants by (a) enhancing the capacity of PFIs in assessing agricultural investments; (b) developing innovative financing and risk management products; and (c) improving the bankability of small farmers and agro-processors, through training, VCD, and connection to markets and financial institutions. CAAP has been working with three financial institutions in Uzbekistan since 2015, resulting in over US\$110 million in targeted agricultural loans and leases being channels to over 14,000 farmers and SMEs. To stimulate market-oriented VCD, CAAP will engage with two large dairy processors to strengthen their capacities in establishing viable and highly professional contractual arrangements, disseminate best practices for quality improvement in compliance with market requirements, and design innovative financing solutions. The value chain approach and financing instruments being developed under CAAP will be replicated to other processors and value chains under Livestock Sector Development Project (LSDP).

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

44. **The overall risk of the project is assessed as Moderate with low to moderate risks on technical design, safeguards, and implementation and fiduciary capacities.** Political and macroeconomic risks are rated Substantial as the government's commitment to increase the market orientation of the economy and the role of the private sector, especially in the agricultural sector, remains to be fully implemented. Sector strategies and policies risks are also rated Substantial because of the following factors: (a) insufficient independence of financial institutions in the allocation of loan funds, (b) exchange rate risks carried by banks, (c) insufficient allocation of land for fodder production, and (d) insufficient government willingness to engage in public awareness with communities on prevention and control of animal diseases. Over the past months, the Government has, however, expressed clear intentions, including through the recently approved Development Strategy for 2017–2021, to further liberalize the economy, pursue institutional and structural reforms to reduce the presence of the state, and progressively reform the exchange rate regime. In 2015, the Government has also initiated a five-year



land reallocation program to reduce cotton and wheat areas by 170,000 ha to stimulate diversification in other crops, including forage and fodder productions. The elaboration of the livestock sector strategy (LSS) and investment plan, proposed under Component 1, will be the opportunity to stimulate a policy dialogue with the Government on key macroeconomic and policy constraints to sector growth and to engage in the discussion farmers and private sector investors involved in livestock production, processing, and marketing. As part of the strategy formulation process, the project will also provide training to MAWR staff on evidence-based livestock sector analysis (LSA) and planning and policy formulation and evaluation.

VI. APPRAISAL SUMMARY

A. Economic and Financial Analysis

45. **The project's economic and financial analysis shows that the project generates a financial internal rate of return of 34–35 percent for farmers and 17–19 percent for processors under the credit line and VCD and an economic rate of return (ERR) of 20.1 percent.** The analysis (detailed in annex 4) is based on seven models in which milk, beef, poultry, and sheep meat producers are financed from the credit line and one model in which a dairy processor and small milk producers are financed through the credit line and VCD subprojects. Project benefits will result from (a) high producer incomes as a result of improved veterinary services and feeding, access to finance, and link to markets and (b) high processor incomes as a result of improved quality and consistency of supplies from farmers through productive partnerships, better access to finance and markets. Other non-quantified benefits include reduced human health costs as a result of improved food safety and zoonotic disease control and reduced GHG emissions.

46. **As summarized in the table 2, the sensitivity analysis shows that the project is robust to changes in key assumptions.** A 20 percent increase in projects costs, a 20 percent decrease in benefits, or one-year delay in benefits results in ERR of between 17 percent and 18 percent. A fall in total project benefits by 20 percent and an increase in total project costs by the same proportion would reduce the base ERR to about 13–15 percent.

Table 2. Sensitivity Analysis

Sensitivity Analysis (20-year period)	Base Case	Costs Increase			Increase of Benefits		Decrease of Benefits			Delay of Benefits	
		+10%	+20%	+50%	+10%	+20%	-10%	-20%	-30%	1 year	2 years
IRR (%)	20.1	19	17	14	22	23	19	17	15	18	15
	22.0	18.0	14.8	7.7	26.4	31.0	17.6	13.3	8.7	16.0	12.7
NPV (US\$, millions)	36.2	33.2	30.5	22.4	41.1	46.2	30.8	25.8	20.5	30.1	24.3
	58.4	44.9	31.4	-9.1	77.8	97.1	39.1	19.7	-1.2	42.3	27.5

Note: NPV = net present value.



B. Technical

47. **The overall technical approach to development of the livestock sector will be guided by the livestock sector review and OIE PVS evaluation to be conducted in June 2017.** The sector analysis will examine the technical feasibility of different livestock production systems in different agro-ecological zones given water, land, and climate change constraints. The OIE evaluation will inform project investments in support to state veterinary services and compliance with international standards.

48. **The project aims to comprehensively address the technical constraints to livestock production with a particular focus on those faced by small producers.** These include animal health, feeding, and breeding within an environment of land degradation and pressure on limited water resources. Further technical challenges addressed include those related to GHG emissions and human health impact because of livestock production. The project also addresses technical constraints to value addition, including inadequate food safety systems and access to technology.

49. **The Technology Generation and Dissemination subprojects led by research and academic institutes will help drive technical innovation in the livestock sector.** The participation of locally based Consultative Group on International Agricultural Research (CGIAR) research institutes (International Center for Agricultural Research in the Dry Areas, International Water Management Institute) will help ensure that subprojects are technically innovative and draw on the latest global research. The project will help ensure the technical soundness of (a) credit subprojects by building the capacity of PFI to technically assess credit application for livestock production and processing and (b) value chains development subprojects by establishing a committee that will draw on peer reviewers with specialist technical expertise to assess proposals.

C. Financial Management

50. **FM staffing in the RRA is adequate with regard to skills, experience, and number of persons.** The RRA will be responsible for FM of all project components and submission of quarterly unaudited interim financial reports (IFRs) and audited annual project financial statements to the World Bank. It will follow the established planning, budgeting, accounting, internal control, reporting, and auditing procedures that will be detailed in the POM. The RRA will manage project payments and maintain project accounting records, which would be segregated for this project. By effectiveness, the RRA will (a) recruit a qualified financial management specialist (FMS) dedicated to project's implementation and (b) acquire an up-to-date accounting software adapted to project needs and customizable for accounting and financial reporting purposes of the project. The overall residual FM risk for the project is Moderate, combined Fiduciary risk rating is Moderate as well.

D. Procurement

51. **The procurement capacity assessment has concluded that procurement capacity and arrangements at the project level are acceptable and overall procurement risk is rated Moderate.** The procurement risks and associated risk mitigation plan are detailed in annex 2. The RRA, which has satisfactory experience in World Bank's procurement, will have overall responsibility for procurement under the project. Procurement will be carried out in accordance with the World Bank's Guidelines. The IBRD- and IDA-funded parts of the project will be mainly implemented through Lines of Credit which are governed by commercial practices and will follow the provisions of the POM. The RRA will prepare all



bidding documents and requests for proposals (RFPs) for all packages under the TA part of the project. By effectiveness, the RRA will recruit an experienced procurement specialist fully dedicated to the project. Procurement training will be provided during project implementation. The project's Procurement Plan (PP) for activities to be conducted by the RRA is presented in annex 2. The World Bank will support the RRA for advanced procurement.

E. Social (including Safeguards)

52. **The project is cognizant of gender issues and strives to engage women in its activities through the training sessions and participation of women in policy dialogue and support packages for entrepreneurial opportunities.** The RRA will recruit a gender specialist to facilitate the inclusion of women in project activities and their participation in investments funded under the credit line. As part of citizen engagement, the project will more broadly engage beneficiaries through (a) policy dialogue among stakeholders engaged and interested in the livestock production under Component 1 and (b) feedback from project beneficiaries on market constraints, extension services, knowledge gaps, and trainings provided under Component 2. Citizen engagement activities will be complemented by awareness raising activities and information campaign directed to small producers to ensure they know how to benefit from project activities. A GRM will cover all aspects of project implementation and will be available to direct and indirect project beneficiaries.

53. **To improve fodder for livestock, access to land is critical and the project may source additional land, if necessary, from the *Hokimiyat's* reserved land.** Concurrently, the project will help smallholder farmers prepare for and take advantage of the land conversion process progressively undertaken by the GoU.⁸ Construction or rehabilitation under Component 1 will occur on government-owned land or within existing floor plans and no resettlement impact is expected. The project will closely monitor any civil works to ensure no resettlement takes place. Resettlement screening procedures are described in the Environmental and Social Management Framework (ESMF).

54. **In recent years, there have been concerns raised in relation to labor practices in the agricultural sector, particularly in the cotton sector, in Uzbekistan.** The 2016 cotton harvest monitoring carried out by the International Labour Organization (ILO)⁹ concluded that child labor had been almost eradicated and become socially unacceptable. However, the risk of forced labor remains in a context of large-scale mobilization of cotton pickers. The GoU is therefore pursuing a number of measures to eliminate forced labor. This includes diversification in less labor-intensive agricultural production. The project will support this objective by increasing the number of farms raising small and large livestock in view of increasing and diversifying rural incomes, as well as creating job opportunities in the agro-processing industry. The project also includes awareness raising and training of beneficiaries on the applicable legislation and regulation on child and forced labor. The different production and processing segments of the livestock industry do not require a large number of workers and large-scale mobilization of labor has not been observed in the livestock sector. To mitigate any residual risk in the case, for instance, of private livestock farms also engaged in cotton production and willing to borrow from the credit line, the project will participate in the third-party monitoring carried out annually for World Bank-funded projects.

⁸ In 2015, 170,00 ha of cotton/wheat land was converted to production of other crops.

⁹ ILO. 2016. "Third-Party Monitoring of Measures against Child Labor and Forced Labor during the 2016 Cotton Harvest in Uzbekistan."



F. Environment (including Safeguards)

55. **The project is classified as Category B as project activities might generate environmental and social impacts that are common for agricultural production and can be easily mitigated by applying best construction, agro-processing practices, and relevant protective measures.** Adverse environmental impacts may range from pollution because of civil works to water pollution and threats to human health because of improper agricultural practices and management of agro-chemicals and animal health chemicals (detailed in annex 2, sections E and F). At the same time, improved fodder, animal health, and livestock production can reduce the cost of various negative externalities including desertification of arid areas, GHG emissions, and zoonotic disease incidence. Project activities will not have adverse impact on Natural Habitats (OP 4.04). On the contrary, increased productivity could lead to a reduction in the number of animals, thus releasing pressure on natural pastures. Although the project will not support purchase and use of mineral fertilizers and pesticides, farmers routinely use them for animal fodder production and parasite treatment. The project will promote their safe use and management through public awareness and training for farmers.

56. **As subprojects to be financed will be identified during project implementation, an ESMF has been prepared, submitted for public consultation on March 27, 2017, and disclosed in-country on April 10, 2017, and at the World Bank's InfoShop on April 11, 2017.** The ESMF provides guidelines for the overall project's safeguards supervision and for subprojects' environmental and social screening and monitoring. The project will deliver training, disseminate guidebooks, and organize demonstrations on (a) education of veterinary specialists on managing environmental and social impacts, (b) sound manure management, (c) silage production and measures to ensure appropriate handling and disposal of silage waste, (d) promoting integrated pest management while producing fodder and safety issues during usage of acaricides in livestock production, and (e) training for PFIs in conducting subprojects' environmental assessment (EA). By effectiveness, the RRA will recruit a safeguards specialist.

G. Green House Gas Accounting

57. **The GHG analysis, using the EX-ACT tool, shows that the project constitutes a net carbon sink, compared to the without-project scenario.** Over a period of 20 years, the proposed project has the potential to avoid emissions and sequester a minimum of 366,800 tCO₂-eq. This positive outcome will result from improved feeding and breeding practices of cattle and small ruminants (using conservative estimates that 5 percent of livestock producers will start adopting climate-smart practices) and from improved pasture management (under conservative estimate that the project will have an impact on 3 percent of the country's arid rangelands and natural pasture areas—330,000 ha representing at least one *shirkat* transferred to private farms).

H. World Bank Grievance Redress

58. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and



Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.



VII. RESULTS FRAMEWORK AND MONITORING

Note to Task Teams: The following sections are system generated and can only be edited online in the Portal.

Results Framework

COUNTRY : Uzbekistan

Livestock Sector Development Project

Project Development Objectives

The Project Development Objective (PDO) is to improve livestock productivity and access to market in selected regions.

Project Development Objective Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: Productivity of selected dairy systems by direct beneficiaries		Number	2620.00	3000.00	Semi-annual	Progress reports	RRA
Description: Liters of milk/cow/cycle Baseline: 2,623 liters							
Name: Productivity of selected cattle production systems by direct beneficiaries		Percentage	0.00	15.00	Semi-annual	Progress reports	RRA



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description:							
Name: Increase in total value of livestock products sold by beneficiaries		Percentage	0.00	15.00	Semi-annual	Progress reports	RRA
Dairy products/milk		Percentage	0.00	15.00	Semi-annual	Progress reports	RRA
Meat		Percentage	0.00	15.00	Semi-annual	Progress reports	RRA
Description:							
Name: Project beneficiaries satisfied with the process of engagement in project activities (policy, feedback, outreach, and GRM)		Percentage	0.00	90.00	Annual	Beneficiary survey	RRA
Description:							

Intermediate Results Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
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Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: Livestock Sector Strategy including Investment Plan submitted for the Government's review		Number	0.00	1.00	Annual	Progress reports	RRA
Description:							
Name: MAWR Staff, farmers and agro-processors trained on policy and regulations in the country and region		Number	0.00	200.00	Semi-annual	Progress reports	RRA; MAWR
Description:							
Name: Performance of Veterinary Services evaluation score (based on OIE Score of 1 lowest to 5 highest)		Number	1.00	4.00	Semi-annual	Progress reports	RRA
Description:							
Name: Fodder crop production in target locations		Tones/year	12000.00	14000.00	Annual	Progress reports	RRA



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description:							
Name: Collaborative research/extension sub-projects under implementation/completed		Number	0.00	10.00	Annual	Progress reports	RRA
Livestock research/extension projects that include climate change mitigation and adaptation technologies		Percentage	0.00	100.00	Semi-annual	Progress reports	RRA
Description: This indicator measures the number of collaborative research or extension sub-projects under implementation or completed.							
Name: Sub-financings provided under credit line		Number	0.00	400.00	Semi-annual	Progress reports	RRA
Including to women-beneficiaries		Percentage	0.00	20.00	Semi-annual	Progress reports	RRA
Sub-financings that include climate change mitigation measures		Percentage	0.00	50.00	Semi-annual	Progress reports	RRA
Sub-financings that include climate change adaptation		Percentage	0.00	50.00	Semi-annual	Progress reports	RRA



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
measures							
Description:							
Name: Change in aggregate portfolio lending to livestock sector by participating financial institutions		Percentage	0.00	15.00	Annual	Progress reports	RRA
Description:							
Name: Productive partnerships created with Project's support		Number	0.00	40.00	Semi-annual	Progress reports	RRA
Including women-members of the groups		Percentage	0.00	40.00	Semi-annual	Progress reports	RRA
Description:							
Name: Farmers adopting improved agricultural technology	✓	Number	0.00	5000.00	Semi-annual	Progress reports	RRA
Clients who adopted an improved agr. technology promoted by project – female		Number	0.00	2000.00	Semi-annual	Progress reports	RRA



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Clients who have adopted climate change mitigation technologies		Percentage	0.00	40.00	Semi-annual	Progress reports	RRA
Clients who have adopted climate change adaptation technologies		Percentage	0.00	40.00	Semi-annual	Progress reports	RRA
Description: This indicator measures the number of clients of the project who have adopted an improved agricultural technology promoted by the project.							
Name: Farmers reached with agricultural assets or services	✓	Number	0.00	35000.00	Semi-annual	Progress reports	RRA
Farmers reached with agricultural assets or services - Female	✓	Number	0.00	15000.00	Semi-annual	Progress reports	RRA
Description:							

**Target Values****Project Development Objective Indicators**

Indicator Name	Baseline	End Target
Productivity of selected dairy systems by direct beneficiaries	2620.00	3000.00
Productivity of selected cattle production systems by direct beneficiaries	0.00	15.00
Increase in total value of livestock products sold by beneficiaries	0.00	15.00
Dairy products/milk	0.00	15.00
Meat	0.00	15.00
Project beneficiaries satisfied with the process of engagement in project activities (policy, feedback, outreach, and GRM)	0.00	90.00

Intermediate Results Indicators

Indicator Name	Baseline	End Target
Livestock Sector Strategy including Investment Plan submitted for the Government's review	0.00	1.00
MAWR Staff, farmers and agro-processors trained on policy and regulations in the country and region	0.00	200.00
Performance of Veterinary Services evaluation score (based on OIE Score of 1 lowest to 5 highest)	1.00	4.00



Indicator Name	Baseline	End Target
Fodder crop production in target locations	12000.00	14000.00
Collaborative research/extension sub-projects under implementation/completed	0.00	10.00
Livestock research/extension projects that include climate change mitigation and adaptation technologies	0.00	100.00
Sub-financings provided under credit line	0.00	400.00
Including to women-beneficiaries	0.00	20.00
Sub-financings that include climate change mitigation measures	0.00	50.00
Sub-financings that include climate change adaptation measures	0.00	50.00
Change in aggregate portfolio lending to livestock sector by participating financial institutions	0.00	15.00
Productive partnerships created with Project's support	0.00	40.00
Including women-members of the groups	0.00	40.00
Farmers adopting improved agricultural technology	0.00	5000.00
Clients who adopted an improved agr. technology promoted by project – female	0.00	2000.00
Clients who have adopted climate change mitigation technologies	0.00	40.00
Clients who have adopted climate change adaptation technologies	0.00	40.00
Farmers reached with agricultural assets or services	0.00	35000.00



Indicator Name	Baseline	End Target
Farmers reached with agricultural assets or services - Female	0.00	15000.00

Note to Task Teams: End of system generated content, document is editable from here.

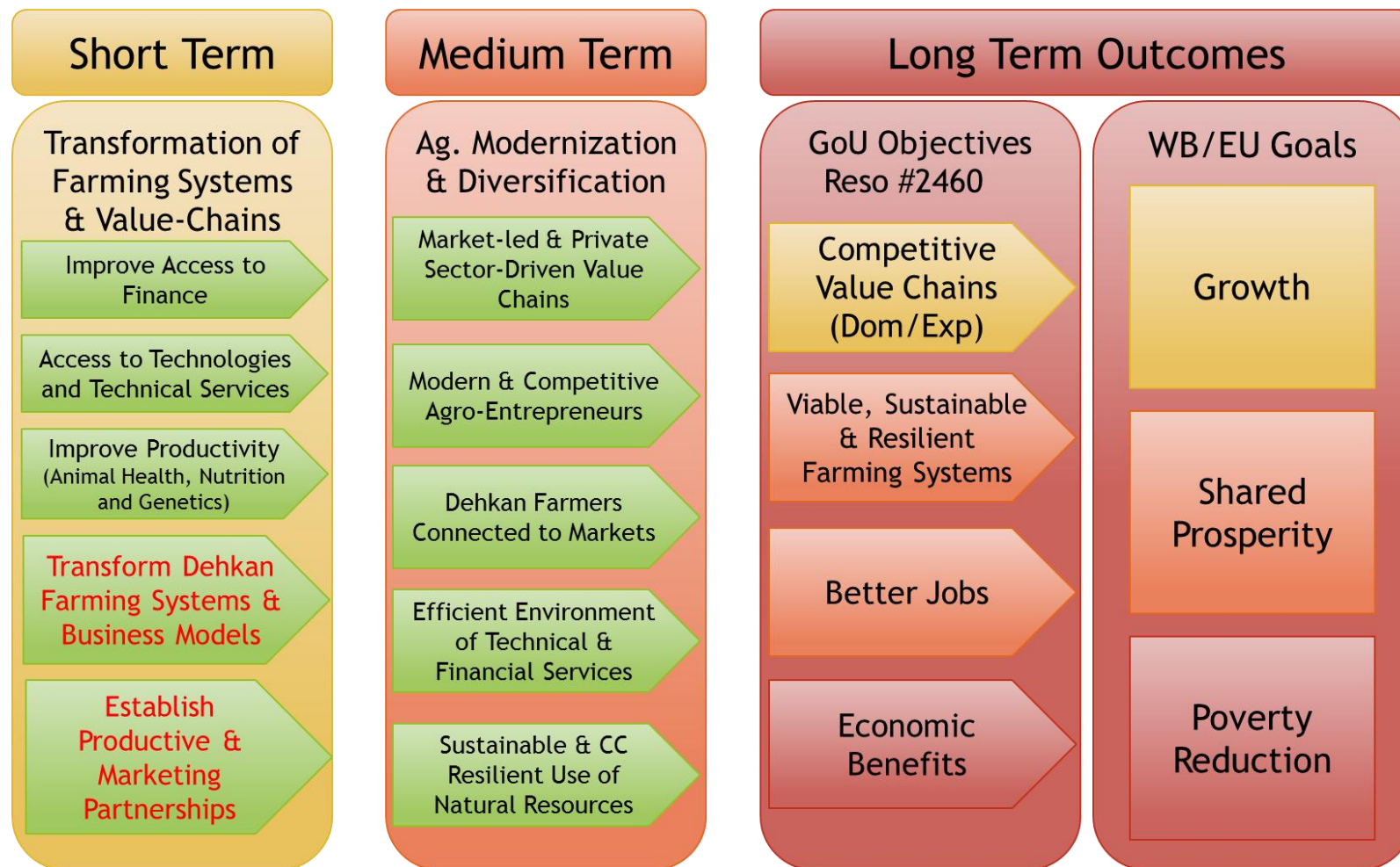
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Estimated number of direct and indirect farmer beneficiaries through the project's credit line (400 sub-loans):

- 50 agro-processors working in partnership on average with 500 private farms and smallholder farmers (25,000)
- 250 private farms working on average with 20 smallholder farmers (5,000)
- 100 farmers' groups of 50 smallholder farmers (5,000)



Livestock Sector Development Project - Results Chain





ANNEX 1: DETAILED PROJECT DESCRIPTION

COUNTRY: Uzbekistan Livestock Sector Development Project

A. Overview of the Livestock Farming Systems

1. While Uzbekistan presents an arid and continental climate, characterized by cold winters and hot summers and low precipitation in most parts of the country, livestock production systems may differ from one region to another, depending on the agro-ecological conditions and population density (as presented in Table 1.1 and Table 1.2). The country is most densely populated in the eastern and central regions, including the densely populated Ferghana Valley, with the remaining population living in the more sparsely populated arid regions of the west. The eastern and central regions are characterized by intensive irrigated agriculture (Piedmont) and by smaller rainfed mountainous and hilly areas (Highlands). The western regions, including Karakalpakstan, are dominated by arid desert and steppe, interspersed with small irrigated areas. In 2015, the national herd consists of 11 million head of cattle (including 4 million dairy cows) and 18.4 million heads of sheep and goat. While dairy, beef, and sheep production can be seen to some extent in most locations, dairy cattle breeding is most concentrated in irrigated crop areas closest to urban centers, whereas beef production is most concentrated in mountain pastures. Karakul sheep which are used for meat, as well as skins and wool, are raised in semiarid and desert locations in the west, where horse and camel rearing is also significant. Natural rangeland and hayfields cover nearly 50 percent of the country's territory, and it is an important source of livelihood for nearly 5 million rural people living in the arid zones of Kyzylkum and Karakum deserts.

Table 1.1. Agro-Ecological Zones and Agriculture Production Systems of Uzbekistan

Agro-Ecological Zones	Elevation (Above Sea Level)	Annual Precipitation and Mean Temperature	Natural Conditions	Landscape	Agriculture Production system	Regions
Desert and semi-deserts, steppes	60–150 m	<200 mm 10°C–15°C	Limited water availability, arid rangelands	Lowlands and grasslands, shrubs	Sheep/goat, fodder, melon and watermelon	Bukhara, Djizzak, Karakalpakstan, Navoi, Syrdarya
Piedmont	400–1,000 m	<400 mm 12°C–14°C	Good water supply, croplands, pastures	Irrigated flat areas for crop production, extensive pastures	Cattle, sheep/goats, poultry, fish, cotton, wheat, fruits and vegetables	Andijan, Fergana, Kashkadarya, Namangan, Surhandarya, Samarkand, Tashkent
Highlands	>1,000 m	>600 mm –5°C–5°C	Natural springs, forests, summer pastures	Highland plains, steep mountains	Sheep/goats, honeybees, medicinal plants, honey, berries, trees	Tian-Shan and Gissar-Alay mountains, Tashkent, NW Surhandarya, East Kashkadarya



Table 1.2. Output Values for Livestock Subsectors by Regions (Based on Farm-Gate Prices of 2015, US\$, millions)

	Milk	Beef	Small Ruminants	Eggs	Chicken Meat	Honey	Silk	Fish	Total Value
Samarkand	638.7	617.8	118.9	93.9	38.1	4.5	2.7	3.9	1,518.7
Kashkadarya	532.3	594.4	234.3	31.7	5.7	4.8	3.1	4.3	1,410.6
Tashkent	441.4	542.3	102.4	123.2	46.5	2.1	1.6	22.4	1,281.8
Bukhara	434.4	498.9	141.8	28.6	6.6	6.7	3.4	4.4	1,124.9
Ferghana	481.5	394.8	56.3	26.8	8.6	5.4	2.6	9.8	985.7
Surkhandarya	423.9	336.7	180.7	23.9	5.0	2.8	1.5	4.3	978.8
Khozerm	489.6	391.2	17.0	33.1	13.8	4.3	2.1	18.2	969.3
Andijan	457.9	378.9	38.5	37.5	7.6	5.7	3.3	6.1	935.5
Jizzakh	281.3	442.4	128.9	17.2	4.8	4.9	0.6	25.3	905.5
Namangan	321.8	316.1	55.7	27.6	5.5	3.8	2.8	6.0	739.4
Navoi	215.9	207.0	184.6	21.9	9.5	4.2	0.9	10.6	654.8
Karakalpakstan	177.9	253.6	29.7	18.6	5.7	2.0	0.9	7.4	495.8
Syrdarya	162.3	164.6	19.9	10.7	1.2	1.1	0.6	4.3	365.0
Uzbekistan, total	5,059.0	5,139.0	1,309.0	495.0	159.0	53.0	26.0	127.0	12,365.0

Source: The State Statistics' Committee of Uzbekistan.

2. In the livestock production, three categories of farms are operating:

- (a) **Shirkats.** Starting in 1998, former state farms and collectives were converted into new cooperative farms (*shirkats*), in which assets were managed by families that held shares in the *shirkat*. The conversion of *shirkats* on arable land was comprehensive but about 103 livestock *shirkats* have 30–50-year lease rights to over 11 million ha (85 percent) of arid pasture land; many of these are to be reorganized through auction under a Presidential Decree #PP-2841. New private farms will be established with 50-year land lease on the associated pastures and irrigated land for fodder production. On average, these cooperative farms have 150,000 ha of rangelands but utilization is poor, inequitable, and inefficient on nearly 70 percent.
- (b) **Private farms.** Between 2002 and 2007, the Government converted *shirkats* into private farms which were created through a bidding process held by a special commission of the *Hokimiyats* (district government). There are 75,000 private leasehold farms in the country, with land allocation (75 ha on average) under long-term leases for 30–50 years. These farms are generally subject to cotton and/or wheat production quotas, for which they receive support from the Government, unless they are designated for growing other crops. They utilize 5.8 million ha of state-leased land areas (with average farm size of 75 ha), out of which less than five percent is allocated for fodder crops. Some of the private farms are specialized in livestock production, mainly dairy production, with a land allocation of 0.35 ha per head of cattle, increased to 0.45 ha in 2006 for farms with more than 30 heads. On average, private livestock farms own 30 to 60 heads of dairy/meat, cattle, and/or small ruminants and rent 10 ha to 20 ha allocated to fodder production (lucerne, oats, triticale, corn, turnip, sugar beet, barley, and so on).



- (c) **Smallholder farmers.** They represent by far the largest category and comprise small informal farming households and legally registered small farming enterprises (*dehkan*). They benefit from lifelong leaseholders with inheritable ownership rights. The leaseholds are, however, very small, ranging in size from 0.06 ha to 0.12 ha. For *dehkan* farmers, the size of irrigated plots can be expanded up to 0.5 ha and the size of rainfed plots to 0.5 ha. There are 4.7 million smallholder farmers who operate independently, without Government intervention or material support. While they own less than 15 percent of arable land but their share of livestock production has gradually increased to more than 90 percent of output (96 percent of milk, 95 percent of meat, and 55 percent of eggs) as they own 80 percent of cattle and 60 percent of poultry. On average, smallholder farms have about 3 cattle and 8 sheep or goats while private farms hold an average of 55 cattle and 15 sheep and goats. Productivity is low, with milk yields averaging 1,300 liters per lactation. Low yields mean that households only generate marketable surpluses beyond household needs in the summer.

B. Key Constraints to Livestock Productivity and Externalities

3. **Macroeconomic and cross-sectoral investment climate constraints to the livestock sector include those related to foreign exchange convertibility, access to cash, and high regulation of private investment.** These are fundamental constraints to development common to all sectors. Access to finance is an overarching constraint at both producer and processor level described below. The underlying causes of weak access to finance lie in (a) the macro-economy and cross-sectoral investment climate; (b) the financial sector which is undercapitalized, has inadequate liquidity, and is insufficiently independent; and (c) the agricultural sector where production risks are perceived as being high, transaction costs of lending to small livestock producers are high, collateral is insufficient, and supply chain finance is inadequate. High demand for credit suggests that the credit market is constrained on the supply side and not on the demand side.

4. **Productivity in the livestock sector is fundamentally constrained by a combination of factors, including** (a) animal health which is constrained by weaknesses in public and private veterinary services, including for surveillance and control of animal diseases, and exacerbated by poor feeding; (b) animal feeding which is constrained by limited land availability for fodder and the abandonment of cotton/fodder crop rotations, degradation of pastures both in non-arid and semiarid regions, and limited availability of concentrate and supplementary feed (including cotton seed cake, the supply of which is in the hands of state-controlled companies that do not sell to smallholder farmers); and (c) animal genetics which is constrained by weak selection and breeding control at farm level, artificial insemination infrastructure, the loss of local genetics adapted to Uzbekistan's climate, and a knowledge deficit in breeding institutions. In particular,

- (a) **Insufficient fodder supply is recognized as a major constraint for livestock sector development in Uzbekistan.** This is a result of restrictions on land use which require private farms to allocate fixed amount of land to wheat and cotton production, leaving insufficient land for fodder crop production for grazing, hay, or silage production. Over 80 percent of irrigated land is dedicated to either wheat or cotton. Because of small irrigated area allocated to fodder crops (in total 325,000 ha in 2014, less than 5 percent of arable land), animal feeding production does not meet demands of livestock farms, especially during the winter period, resulting in low animal productivity for all categories of farming



entities. A range of other factors, which also constrain animal feeding includes (a) availability of quality fodder crop seeds because of insufficiently funded and organized seed system ranging from breeding and multiplication to marketing and distribution; (b) low fodder crop yields and insufficient access to irrigation for irrigated fodder production as a result of degraded irrigation infrastructure and weak local irrigation management institutions; (c) lack of funding and institutional arrangements for the advisory services on fodder production, practical instructions on preparation of animal feeding rations, artificial insemination, and animal health care and husbandry. The Government has made some small but significant efforts to diversify agriculture, especially in early 2016 with the transfer of 170,000 ha of cotton-wheat land to other crops, including fodder.

- (b) **There is a potential to increase the productivity of pastures in arid areas but there are interrelated environmental and social constraints.** Currently, over 13 million ha of arid rangelands are home and source of livelihood for nearly 5 million agro-pastoral households. The current stocking intensity on arid pastures, particularly near rural settlements and watering sources, is reported to be two to three times of sustainable levels. By contrast, two-thirds of productive rangelands in remote areas are underutilized because of obsolete water infrastructure, high transaction cost, and lack of social services. Rangeland rotation schemes are not practiced as vegetation maps are old and do not reflect current seasonal biomass changes. Poor investments and maintenance in pasture infrastructure such as animal shelters, water wells, roads, animal cleaning basins, and insemination facilities lead to poor productivity of pastoral livestock production. In such an environmentally fragile environment, investment in infrastructure without plans to prevent overgrazing around new boreholes could be counterproductive. There is also a lack of decision-support tools and institutional capacities to better organize and plan livestock grazing with available rangeland resources. However, this is not likely to be achievable without addressing professional capacities of pasture managers and without an equitable allocation of pasture rights between private farms, small farms, and karakul sheep *shirkats*—which have long-term leases rights to a disproportionately large area of pasture compared to smallholder farmers. The Government has, however, initiated a new policy of land optimization at rangelands, whereby pasture land reallocation is planned from 80 percent large-scale karakul *shirkats* toward smaller private farms and agro-pastoral smallholders.
- (c) **Lack of quality animal health services is another obstacle for the development of livestock value chains.** State departments for veterinary services monitor animal health at provincial and district levels. However, the capacity of veterinary institutions at district level and their technical infrastructure such as lab facilities do not meet quality standards. Inadequate veterinary services affect not only animal productivity but also trade and human health. Although information on disease prevalence is limited, the veterinary service recognizes the importance of improving disease prevention and control and prioritizes the control of several zoonotic and transboundary diseases (including brucellosis, echinococcosis, foot and mouth disease, tuberculosis, peste des petits ruminants, rabies, anthrax, and others). It is, therefore, crucial to address such veterinary system challenges and production constraints to receive respective quality certification and to supply safe livestock products to domestic and export markets.



5. **Value addition in the livestock sector is fundamentally constrained by** (a) trade policies that restrict the export of poultry and meat products and by-products that are aimed at improving self-sufficiency but which create a disincentive for private investment; recent reforms including more flexible export/import licensing and authorization are starting to address this constraint; (b) high transaction costs related to processors dealing with the large number of small individual producers because of limited farmer-farmer and farmer-buyer cooperation, inadequate marketing infrastructure, and limited supply chain finance to producers; and (c) food safety compliance in agro-processing which is inadequate and undermines competitiveness in both high-end urban domestic markets and export markets.

6. **The livestock sector generates positive and negative externalities that are important to consider in developing the livestock sector, including the following:** (a) GHG emission and carbon sequestration; the Government recognizes the potential to reduce GHG emissions from the livestock sector through improved genetics, feeding and waste management, and better carbon sequestration through soil and pasture management and (b) human health and nutrition which is affected by the livestock sector through multiple pathways, including consumer diets,¹⁰ food safety, zoonotic diseases, and increased AMR because of antibiotic use in livestock production.

7. **The scarcity of long-term resources in the banking sector (in general, outside donor projects) is one of the main issues hindering investment lending to agriculture and in livestock in particular.** Although lending for agriculture has recently increased, the current needs of the sector far exceed the long-term funds available to commercial banks, as shown by the high demand for investment funds under RESP II and the HDP. Microcredit providers' market is very limited, and household-level livestock production and small-scale processing are being underserved by the financial sector. The overwhelming number of deposits in the banking sector are demand deposits and thus they are not suitable for long-term lending. Commercial banks perceive livestock sector loans to be lower risk than other agricultural production loans because breeding stock can serve as collateral. The Government has recently assigned various commercial banks to invest in targeted value chains but medium- and large-scale investors are usually constrained by the lack of hard currency to acquire technology innovations abroad.

Challenges to Addressing Constraints and Externalities in the Livestock Sector

8. **The overall challenge is to design a strategy, policy, and investment framework that addresses the aforementioned constraints, externalities, and economic transformation challenges** (job creation, less intensive water and energy use, economic diversification, and more equitable growth). This requires (a) identifying the production systems that are technically efficient, economically efficient, and most competitive, considering changing agro-climatic boundaries and the real economic costs of water; (b) understanding the impact of alternative production systems on externalities; (c) understanding their potential impact on economic transformation objectives; and (d) identifying policy reform and public investment priorities to create incentives and provide public goods to support the development of these production systems, limit their negative externalities, and enhance their contribution to economic transformation. Among these policy reforms, removing requirements on land use to enable diversification into fodder crops will be critical to addressing feeding constraints. Subcomponent 1.1 supports the design of a strategy, policy, and investment framework.

¹⁰ The average intake of protein of animal origin being 27 g per capita per day compared to the recommended value of 40 g.



9. **Strengthening core public services and infrastructure is also critical to address the sectoral constraints.** This relates to the following services:

- (a) Veterinary services, including improving higher education, developing the legal and regulatory framework for public and private veterinary services, and strengthening the state veterinary service for the control of production, transboundary, and zoonotic diseases.
- (b) Seed breeding, testing, and certification to improve the quality and availability of certified fodder crop seed through adequate plant breeding, selection and maintenance, variety testing, variety listing, seed inspection, testing and certification, private sector seed multiplication, and distribution.
- (c) Pasture management, including a more equitable allocation and management of pasture rights involving both local government, *shirkats*¹¹ and small producers, pasture monitoring and planning, investment in water boreholes and tracks to improve access to underutilized areas and ease pressure on overutilized areas, more research and demonstrations on drought-resistant species.
- (d) Animal breeding and the need to determine the most cost-effective means of importing improved genetics, to strengthen research institutes, including in maintaining local genetics with high resilience to challenging climatic conditions and reducing GHG emissions from ruminants, and upgrading the semen distribution network. Subcomponent 1.2 supports the strengthening of public services.

10. **Key challenges to stimulating private investment in the livestock sector, beyond economywide, macrofiscal, financial sector, and investment climate constraints, relate to improving small producers' and agro-processors' access to finance and markets.** The challenges to improving access to finance include (a) increasing financial institutions' liquidity, building financial institutions' skills in lending to agro-processors and addressing weaknesses in value chains that increase the risks of lending to agro-processors and (b) increasing small producers' access to finance by expanding the provision of supply chain finance from agro-enterprises to small producers. Subcomponent 2.1 addresses access to finance challenges.

11. The challenges to improving access to markets include improved processing enterprise food safety compliance and improved access to technology to improve competitiveness. Existing food safety legislation provides a sufficient basis for compliance with Codex Alimentarius and the principles of Hazard at Critical Control Point (HACCP) but compliance is weak. At the producer level, the challenges include building mutually beneficial contractual relationships between farmers, farmers groups, and agro-processors and improving marketing infrastructure for small producers to reduce the transaction costs of dealing with small farmers. Subcomponent 2.2 will invest in productive alliances to address these challenges.

12. **Recent policy reforms go some way to addressing some of these challenges.** For instance, the Presidential Decree #PP-2841 on 'Additional measures to deepen economic reforms in the livestock

¹¹ 103 *shirkats* (cooperatives) that dominate karakul skin production and pasture management in many arid areas.



sector', approved in March 2017, aims at privatizing 69 karakul sheep and 10 cattle *shirkats*, as well as 32 state-owned karakul farms through public auctions. New private farms will be established with 50-year land lease on the associated pastures and irrigated land for fodder production. This decision constitutes an important step in the right direction to use pastoral resources more efficiently and increase competitiveness through private sector investments.

C. Project Description

13. **The project includes the following three components: (a) Component 1: Livestock Sector Public Investment Framework and Public Services; (b) Component 2: Livestock Value Chains Modernization; and (c) Component 3: Project Coordination, Management, and Monitoring and Evaluation.** With regard to addressing the three challenges to livestock sector development (policy and investment framework, public services, and environment for private sector investment), Subcomponent 1.1 will support the design of a strategy policy and investment framework; Subcomponent 1.2 will strengthen public services to address animal health, animal feeding, animal breeding, and access to market constraints; and Subcomponent 2.1 will improve the environment for private sector investment through a credit line. These subcomponents will have nationwide impact across all livestock value chains. Subcomponent 2.2 will improve the environment for private sector investment through VCD subprojects and will affect selected value chains in selected locations.

14. **Component 1: Livestock Sector Public Investment Framework and Public Services** (US\$2 million IDA, US\$5 million EU). Component 1 will support the design of a strategy, policy, and public investment framework and strengthen public services to address animal health, animal feeding, animal breeding, and access to market constraints.

15. **Subcomponent 1.1: Strategy, Policy, and Public Investment Framework** (US\$2 million EU) will finance TA for (a) the preparation of a 15-year sector modernization strategy and a 5-year investment plan using an existing tool that was developed with the World Bank; (b) capacity strengthening of MAWR staff for sector analyses, budget and policy formulation, and M&E; (c) establishment of a platform for public-private policy dialogue between Government, producers, and the agro-food industry with a strong focus on the integration of small livestock producers into value chains; and (d) studies on specific aspects of the policy and regulatory framework, which include the following preliminary list: trade policies, strategy for alignment to international standards, analysis of certification and standardization processes, and strategy to promote traceability. This list will be revised using recommendations and suggestions of the livestock sector review for additional analytical works.

16. The project will help the Government conduct a comprehensive review of the livestock sector, analyze prospects and future directions for development. It will help elaborate a long-term sector modernization strategy and a medium-term investment program. The Government recognizes that the lack of information and comprehensive vision for the development of livestock production in the country is a key constraint to its development. There is a need for a better understanding of the multiple benefits that investments in livestock can generate and an assessment of potential returns, especially with regard to growth and job creation. The project will rely on the related sector analysis tools such as Livestock Sector Investment and Policy Toolkit (LSIPT).

17. The project will help MAWR strengthen its capacity and ability to carry out evidence-based livestock sector planning for sector strategy and investment program preparation and implementation.



The approach will rely on producing a herd and sector model and then carry out a sector analysis resulting in a long-term sector modernization strategy (15 years) and a five-year investment implementation plan. Scenario analysis will be carried out to understand the current situation/potential of the sector (contribution to agricultural and national gross domestic product [GDP]) and the future outlook for consumption-production balance (potential for future production surpluses or deficits), with no additional investment, as well as with some key investments in livestock interventions (policies and technologies) which can be considered for a sector investment program to gauge the challenges, constraints, and opportunities which will face Government's and donors' investments. Government staff will be trained to use the herd and sector model and related LSIPT tools to carry out the long-term 15-year LSA which will result in a 15-year LSS aimed at sector modernization. The LSS will provide the framework for developing investment interventions (policies and technology) to be elaborated in the five-year investment implementation plan or Livestock Master Plan.

18. This review will be the opportunity to foster a policy dialogue between the Government, farmers (through the farmers' council and women groups), private operators, and donors on key policy and institutional issues in the sector. This will be done through regular seminars and policy discussions with various counterparts who represent different professional networks and regions of the country. The agenda will be determined by the participants. The results and the main agreements of these discussions will be made public. As such, the project will strengthen the capacity of MAWR staff to carry out its core responsibilities with regard to sector analysis, production, and dissemination of up-to-date statistics, policy recommendation and formulation, overall sector coordination, and subsectors M&E. Statistical data remain limited in the country and the regular production of statistics and analyses on the sector evolutions and performances is critical to facilitate policy decision making and to orient public and private investments. The project will finance regular surveys and targeted analytical work to properly monitor the effect of policy decisions and measure the impact of investments. Special attention will be paid to gender aspects and gender disaggregation of the collected data. Where feasible, focus groups and meetings with only female farmers will be held to collect their unique feedback, needs, and concerns.

19. This subcomponent will also contribute to improving the regulatory framework and facilitating its alignment to international standards. It will finance studies and expertise to ensure certification, standardization, and traceability required on targeted export market. It will also help the different stakeholders of the livestock sector to conduct market intelligence to identify prospective export markets where Uzbekistan may have a comparative advantage, to analyze the domestic market demand and its evolution, and to establish a market information system.

20. **Subcomponent 1.2: Strengthening Livestock Sector Public Services** (US\$2 million IDA, US\$3 million EU)

21. **Activity 1.2.1: Veterinary Services Improvement** (US\$2 million IDA) will finance (a) TA to improve the legal framework and strategy for development of the veterinary services, (b) training and equipment to selected public veterinary agencies to improve disease surveillance and reporting systems, veterinary diagnostics laboratories and standard operating procedures, vaccine storage and distribution facilities, public awareness, rapid response capacity; (c) minor works and equipment for rehabilitation of selected public veterinary facilities; and (d) studies on border control and quarantine and veterinary drug regulation and on animal identification, registration and movement control.



22. The PVS evaluation and gap analysis to be carried out by the OIE in June 2017 will provide a detailed plan of investment in veterinary services for the next five years. The OIE PVS pathway is a global program for the sustainable improvement of a country's veterinary services' compliance with OIE standards. This is an important foundation for improving animal and public health and enhancing compliance with SPS sanitary and phytosanitary standards at the national, regional, and international level. The PVS has different stages: (a) the PVS evaluation is a qualitative assessment of the performance and the compliance of veterinary services in accordance with the OIE international standards on quality of veterinary services; (b) the PVS gap analysis facilitates the definition of the country's veterinary services' objectives with regard to compliance with OIE quality standards, suitably adapted to national constraints and priorities; and (c) capacity-building activities on veterinary legislation, PPP, veterinary education, and laboratories that help the country reach its objectives defined in the gap analysis. Uzbekistan received the PVS evaluation in 2007 and has now requested the gap analysis. The latter will help define more accurately the detailed plan of capacity building, study, equipment, and facility rehabilitation investments to be supported by the project. Should the need be identified and request made by the Government, the project could also support OIE capacity-building interventions, notably on veterinary legal reforms and laboratories network improvement. Cost estimates will be detailed based on the OIE recommendations and the project will support priority investments. If needed, additional funding might be provided by the Government or sought from other donor sources.

23. This subcomponent will also undertake some limited training on food safety. It would in particular strengthen compliance of agribusinesses along value chains with the existing food safety legislation. Although the legislation provides a sufficient basis for compliance with Codex Alimentarius and the principles of HACCP, it has not been adequately applied in practice. The project will finance food safety training for farmers and agro-processors based on needs assessments to be undertaken during project preparation. This will be complemented by enterprise-specific investments in upgrading agro-processing facilities to improve food safety under Component 2.

24. **Activity 1.2.2: Fodder Seed Improvement** (US\$1 million EU) will finance minor works, equipment, training, and TA to strengthen national-level agencies and state seeds farms undertaking plant breeding, variety testing, selection and listing, seed inspection, testing and certification of fodder crop seeds, and production of elite seed. New fodder crop varieties have already been developed but have not been disseminated beyond research stations. The project will help establish a proper system of seed selection, multiplication, and marketing. It will rely on research institutes to produce elite seeds, on private farms for the multiplication of certified seeds, and private suppliers for the commercial distribution to smallholder farmers. The project will stimulate the selection and dissemination of drought- and heat-tolerant fodder crop varieties to help livestock producers adapt to the anticipated climate change risks. The Livestock, Poultry, and Fishery Research Institute has developed and tested different high-protein feeding rations for large and small ruminants based on locally produced crops and locally available fodder. The project will also help disseminate these rations adapted to local production conditions.

25. **Activity 1.2.3: Market-Led Technology Generation and Dissemination** (US\$2 million EU) will finance (a) subproject grants for the generation and dissemination of market-led climate-smart technologies (including for fodder crop production, pasture improvement, livestock health, feeding, husbandry and breeding, supply chain traceability, and certification) selected through calls for proposals from research institutions, universities, or the private sector and (b) TA from locally based CGIAR research institutes for the supervision of research subprojects. Subprojects will include training and



demonstrations, conferences and workshops, and equipment and small-scale rehabilitation works of applicant institutions.

26. Priority will be given to research which promotes climate-smart technologies (including through improved genetics, feeding, pasture management, and waste management) and water use efficiency or addresses regional or global human and animal health issues, including AMR. Other priorities could include (a) pasture management: the project could provide TA and training to improve administrative arrangements for allocation of pasture rights and to promote a sustainable pasture management among users and (b) breed improvement: The Livestock, Poultry, and Fishery Research Institute has been working on artificial insemination to promote cross-breeding of local breeds with imported pedigree animals to simultaneously achieve productivity increase and resilience to local conditions. The project will help disseminate improved artificial insemination and cross-breeding practices, including upgrading the semen distribution network from national level to veterinarians.

27. The project will encourage collaboration between public institutions and the private sector to jointly identify and prioritize research needs and ensure that subprojects are demand driven and market led. The approach will rely on a proper needs assessment made with beneficiaries at the beginning of the project and a prioritization process with respect to the project's regional and subsector targeting strategy. Subprojects should also directly contribute to improving the performance and competitiveness of targeted value chains by delivering quick technical answers and forward-looking innovations required by all stakeholders along the value chains. Subprojects will promote innovative technologies to help develop quality control and traceability along the value chains from production to marketing and improve compliance with sanitary, food safety, and market requirements. Selection and prioritization criteria for research and dissemination subprojects will be defined in the POM.

28. **Component 2: Livestock Value Chain Modernization** (US\$112.8 million IDA, US\$30 million IBRD, US\$11 million EU). Component 2 will address access to market and access to finance constraints, including through (a) providing access to finance from PFIs through a credit line and (b) VCD subprojects that build productive partnerships between value chain actors. This component will have a strong emphasis on supporting the integration of small producers into value chains.

29. **Subcomponent 2.1: Credit Line for Private Investments** (US\$112.8 million IDA, US\$30 million IBRD). This subcomponent will address the lack of long-term financing for the livestock sector by providing funding with a maturity of up to 20 years to the banking sector to be revolved in the PFIs. The component will finance (a) a credit line to PFIs for provision of working capital and investment finance to the livestock sector nationwide and (b) training and TA for PFIs on sector-specific loan product development, loan appraisal, and monitoring in the livestock sector. The project will build on the experience gained during RESP II and the HDP, which has achieved sizeable results with the provision of financial services to Uzbekistan's agricultural enterprises. Lending by the PFIs will be demand based.

30. **Types of investments financed.** A wide range of investments in livestock-related activities will be eligible for financing from the credit line, aiming for enhanced competitiveness of the agribusinesses, access to new technologies, equipment and process upgrades for food safety compliance, and improved market access through establishment of market links. The project will provide working capital and investment finance, including for farming, marketing, distribution, processing, and upgrading of existing infrastructure and equipment required to comply with food safety or market-specific requirements. Agricultural inputs, such as seed and fertilizer, as well as processing raw materials,



consumables, and other items necessary for livestock product production, processing, and trading will also be eligible for working capital financing.

31. **The project will give priority to investments that promote climate resilience and emission reduction** such as climate-smart technologies and practices and renewable energy supply (bio and solar energy) systems. At least 50 percent of sub-loans should include climate change mitigation to minimize GHG emissions (animal waste management, biodigesters, pasture management, energy saving, and so on) or adaption activities (drought- and heat-resistant fodder crop varieties and breeds, water savings, renewable energy, and so on)

32. The project will work closely with commercial banks to identify investment subprojects that are critical to enhance the competitiveness of the sector, to stimulate value chain organization and collaboration among stakeholders, and to facilitate the connection of smallholder farmers to markets and their inclusion into modern value chains. The credit line will therefore finance subprojects presented by individual agro-processors that meet the above criteria, as well as investments prepared by clusters of aggregators, private farms, and smallholders under Subcomponent 2.2. As part of a productive partnership, supported under Subcomponent 2.2, a private agro-processor and individual farmers could receive individual loans for their own individual investments, while the producer group to which farmers belong could receive a grant under Subcomponent 2.2 (for instance, for a collectively used equipment, such as a dairy cooling tank). The project will organize an information campaign that will publicize credit lines available to farmers, loan application criteria, and process.

33. **TA to PFIs.** The project will implement a capacity-building program for the financial institutions involved in the project, to support their activities in value chain financing. The training program will cover (a) structuring of financial products to support livestock sector and (b) value chain financing products. The training will be for about five days and will target loan officers and branch managers of PFIs. An international bank training company will be hired under the project to do the initial training, as well as transfer this specific knowledge to a local bank training company, which will take over the training activities at the later stages of the project. The PFIs will also receive training in environmental aspects of livestock project financing, which will be delivered by a local consulting company.

34. **Potential PFIs.** The potential PFIs under the project include all PFIs under the ongoing HDP, that is, Asaka Bank, Hamkor Bank, Ipak Yuli Bank, Ipoteka Bank, Halq Bank, National Bank of Uzbekistan, Qishloq Qurilish Bank, Turon Bank, and Uzpromstroibank, as well as new potential PFIs: Aloqua Bank, Asia Alliance Bank, InfinBank, Kapital Bank, Microcreditbank, and Orient Finance Bank. They have all been prequalified for undergoing due diligence. The listed potential PFIs are interested in supporting development of the livestock sector and working with the borrowers proposed under the project, and they are interested in participating in the training offered by the project.

35. **PFI due diligence.** The due diligence of the potential PFIs will be carried out in summer 2017 based on the audited results for 2016. An international consultant with relevant experience in due diligence of commercial banks will be engaged by the RRA, and the results of the due diligence will be subject to the World Bank's 'no objection'. The nine active PFIs of the HDP are submitting audited reports and have been monitored by the RRA. They are expected to join the LSDP without additional due diligence, unless audited reports for 2016 warrant such due diligence. The criteria for the initial due diligence and continued maintenance of a PFI status for commercial banks are provided below. These criteria shall also be used by the RRA to monitor the continued eligibility of the PFIs operating under the



credit line.

36. **General standards.** (a) be in compliance with all banking laws and prudential regulations of the Central Bank of Uzbekistan; (b) be interested and committed to servicing the range of clients, who are the intended beneficiaries of the LSDP; (c) have or be willing to open branches or minibanks in the project districts or ability to ensure other ways of servicing the potential borrowers in the project districts; (d) undergo an annual audit that is conducted in accordance with International Standards of Auditing by an audit company acceptable to the World Bank for the purposes of audit of financial institutions, with an unqualified audit opinion; and (e) have the necessary staff, knowledge, physical, and other resources to implement the credit facility under the project.

37. **Financial prudential standards.** (a) at all times, meet the prudential regulations issued by the Central Bank of Uzbekistan; (b) have a risk-weighted capital adequacy ratio of no less than 10 percent; (c) the maximum exposure to a single borrower or group of related borrowers shall not exceed 25 percent of the bank's tier one capital; (d) have aggregate exposure to insiders (defined as members of the Board of Directors and the Management Board of such PFI, employees in management position and shareholders with voting rights in excess of 10 percent) of no more than 100 percent of tier one capital; (e) have a positive net income for the current and two immediately preceding financial years, as reflected in the financial statements audited in accordance with International Standards on Auditing; (f) have acceptable asset quality and quality management policies, procedures, and skills; (g) the aggregate share of subloan/lease/subfinancing portfolio outstanding under RESP II, HDP, and the LSDP shall not exceed 75 percent of the PFI's capital according to International Accountants Standards.

38. **Corporate governance and managerial standards.** (a) have a Board of Directors, responsible for setting the overall bank policy and perform appropriate oversight of the bank's operations; (b) have a qualified and capable management team; (c) have a sound business plan and appropriate budgeting and budget control procedures; (d) have sound lending policies and procedures, including in respect of the entire credit cycle, problem loan management, write-offs of assets, credit approval authority, and so on; (e) have satisfactory internal control and audit procedures, including accounting principles and procedures and financial documents, internal controls and reporting, and operational controls, confirmed by external auditors; (f) not be exposed to undue interest rate risk, as confirmed by annual audited financial statements; and (g) have an internal reporting and management information system capable of providing sufficient information necessary for managing the bank's operations, performance, and risks.

39. **Potential demand for funding.** The tentative demand for funds, as indicated by the potential PFIs, are listed in table 1.3:

Table 1.3. Provisional demand for funding

Financial Institution	Tentative Demand, (US\$, millions equivalent)
Xalq Bank ^b	As much as possible ^a
Microcredit Bank	30
Qishloq Qurilish Bank ^b	15
Ipak Yoli Bank ^b	10
Aloqua Bank	10
Turonbank ^b	10



Financial Institution	Tentative Demand, (US\$, millions equivalent)
Asia Alliance Bank	10
Kapital Bank	1
Hamkorbank ^b	NYI ^c
Infinbank	NYI
Ipoteka Bank ^b	NYI
Asaka Bank ^b	NYI
National Bank of Uzbekistan ^b	NYI
Uzpromstroibank ^b	NYI
Orient Finance Bank	NYI

Note: a. This would be restricted by the overall exposure of World Bank-financed credit lines to the PFI capital, which is set at 75 percent. The PFIs' capital as of end-2016 was US\$172 million equivalent.

b. HDP PFIs.

c. NYI = Not Yet Informed the team of the amount the PFI would like to reserve under the credit line).

40. **Implementation mechanism.** Similar to RESP II and HDP, the credit line will be extended through qualified commercial banks, the PFIs. A PFI will be a commercial bank selected based on a set of PFI eligibility criteria, which include compliance with banking laws and prudential norms and regulations, maintenance of a healthy financial status, and sound lending policies and procedures. The credit line will be open to all interested commercial banks, which qualify through the due diligence process. The LSDP Credit Line Investment Guidelines (such as the Rural Enterprise Investment Regulations under RESP II and HDP) will set forth the eligibility criteria for PFIs, eligible sub-borrowers, and eligible subprojects to be financed; detailed withdrawal procedures; and responsibilities of all parties involved in the implementation of the credit line. The RRA, which has good prior track record implementing the RESP II and HDP credit lines, will administer the implementation of the credit line on behalf of the Republic of Uzbekistan, and ensure that the provisions of the Credit Line Investment Guidelines and the subsidiary loan agreements are enforced. Their detailed responsibilities under the credit line will be set forth in these guidelines.

41. **Types of financial products.** The project's credit line will have the following lending products: (a) investment loans to finance investments in the livestock sector, as described earlier; (b) traditional working capital loans up to 18 months to finance agricultural inputs and other short-term needs in the livestock sector, as described earlier; and (c) the project will introduce financial instruments for financing of productive links and value chains, such as seasonal loans to allow prefinancing of agricultural production in contractual farming schemes, financing of marketing contracts, and other similar types of contractual arrangements with agro-producers. These products can be structured in a variety of ways and are expected to shift the focus of the financial sector off the traditional forms of collateral; help agribusinesses borrow to deliver under signed contracts; and develop relationships between farmers, agro-processors, wholesalers, retailers, and so on. Thus, some of the benefits for agro-processors include helping agro-processors to access finance, expand production, timely deliver on contracts, increase cash flows, and ensure reliable supply of raw materials. To farmers, these products can ensure more reliable incomes, markets for their products, and access to knowledge.

42. **Main terms and conditions of the credit line.** Subfinancing will not be used for any activity involving child and forced labor in any form or land acquisition or resettlement of people or loss of assets or income. The funds will be available both in Uzbekistan soums and U.S. dollars, based on the demand of the sub-borrowers.



43. The PFIs will receive credit line proceeds for up to 20 years, inclusive of a grace period of 5 years, and repay the principal amount to the Ministry of Finance (MoF) over the period of 15 years in equal semiannual payments, upon expiration of the grace period. The PFIs will revolve internally, any amounts received as repayment from the sub-borrowers and not needed for repayment to the MoF, providing new sub-loans in compliance with the PDO and the operational guidelines for the credit line. The interest rate to the PFIs will be discussed and finalized during the preparation of the LSDP Credit Line Investment Guidelines. The PFIs will set their own interest rates and repayment terms to final subloan beneficiaries based on their banking considerations. The PFIs will carry out appraisal of sub-loans and sub-borrowers based on the agreed criteria, and will bear the full risk of subsidiary loan repayment.

44. The maximum loan size will be up to US\$2 million, to ensure financing for larger loans to invest in cold storages and agro-processing equipment, as well as to support the entire VCD. Working capital loans will be up to US\$150,000 for up to 18 months, and the value chain financing products will have the maximum loan size of up to US\$2 million and maturity will depend on the nature of the transaction that this loan will finance. The maximum maturity of the subfinancings will not exceed 10 years or the amortization period of the asset, whichever is shorter. The actual size and maturity of the loans/leases will depend on the type of investment financed, profitability of the activity, cash flows generated, collateral, and other banking considerations.

45. **Maximum financing share:** The project will finance up to 100 percent of the sub-loans in U.S. dollars, while requiring 20 percent cofinancing from the PFIs for Uzbekistan soum sub-loans. The sub-borrowers will be required to contribute 20 percent of the subproject financing (in cash or in kind).

46. **Additional requirements:**

- (a) The PFIs and the RRA shall monitor the use of child and/or forced labor during the monitoring visits to the sub-borrowers.
- (b) Subfinancings will not be used to finance activities that involve child or forced labor in any form. The activities of all potential project beneficiaries will be prescreened and regularly monitored to ensure that they are not related in any form to child or forced labor. Should child or forced labor cases be found, the right of the beneficiary to use the proceeds of the subfinancings will be suspended and terminated, and declared to be immediately due and payable to the PFI. The PFI will return the funds to the RRA, and this amount will be cancelled from the IBRD loan. The PFI will be disqualified from providing subfinancings in the project, in accordance with the relevant criteria and provisions established in the Project Implementation Plan (PIP). The PFI will be disqualified from further participation in the project's credit line and the PFI's entire outstanding subfinancing portfolio financed by the project will be transferred to another PFI for servicing.
- (c) The credit line beneficiaries will have to comply with any applicable legislation and regulations on child and forced labor, in accordance with the relevant provisions of the Loan Agreement, Subsidiary Loan Agreement, the PIP and the Credit Line Investment Guidelines.
- (d) A requirement for accessing value chain product financing by a sub-borrower under this credit line will be an upstream (processing, trade, and so on) or downstream (production)



contractual relationship within the value chain, to ensure the viability of the productive links financed under the credit line.

- (e) The PFIs will have to hire an agronomist or set up arrangements with suitable consulting companies to ensure the technical feasibility of the investments financed.

47. **Subcomponent 2.2: Value Chain Development and Smallholder Market Inclusion** (US\$11 million EU) will finance (a) TA for facilitating the establishment of productive partnerships between value chain actors (producers, buyers, and service providers); (b) VCD subproject preparation, supervision, M&E; and (c) grants for VCD sub-project investments. Provisionally it is envisaged that 40 VCD subprojects will be supported with an average cost ranging between US\$100,000 and US\$500,000.

48. Subprojects are envisaged to include (a) TA for advisory and other services on all aspects of animal health, feeding, fodder crop and pasture management, breeding and marketing—this would include training targeted to the needs of women involved in livestock production; (b) works and collectively used equipment for farm infrastructure including housing, handling and storage, waste management, and biogas facilities, as well as other energy efficiency and renewable energy technologies (solar water heaters, water photovoltaic systems, wind generators, energy efficiency pumps, solar power stations and mini-hydroelectric power stations); (c) works for construction or improvement of communally utilized storage and distribution infrastructure such as cooling tanks; and (d) training and works and equipment for farm and agribusiness infrastructure/equipment improvement for food safety compliance or to support the adoption and demonstration of innovative technology.

49. Principles for subprojects will be that they (a) link small producers to buyers and facilitate their inclusion into modern value chains; (b) comprehensively address constraints along value chains; (c) are market-led and based around commercial opportunities; (d) finance primarily public goods (such as collective equipment for small farmers' cooperatives; purely private goods would be financed from participants' equity or the credit line under Subcomponent 2.1). Criteria for selection of subprojects will be defined in the POM and will be based on (a) financial viability, (b) participant contributions, (c) comprehensiveness, (d) climate change co-benefits on emission reduction and resilience strengthening, and (e) compliance with safeguards requirements.

50. Subprojects will be limited to specific regions and value chains based on regional competitiveness and complementarity with donor programs. Selection will be revised based on the livestock sector review proposed under Component 1. Table 1.4 summarizes the justification for the provisional selection of value chain and regions.

Table 1.4. Provisional Selection of Value Chains and regions for TA under Subcomponent 2.2

Production Value Chain	Region	Justification	Specific Issues
Dairy/beef	Andijan, Namangan, Kashkadarya, and Samarkand	<ul style="list-style-type: none"> Increasing market demand Smallholders represent 96 percent of dairy production and 97 percent of beef production Private investments in processing 	Market aggregation, including smallholders; productivity; improved feeding; fodder production; quality, standard, and traceability
Poultry	Khorezm, Syrdarya, Andijan,	<ul style="list-style-type: none"> Government priority to support rural households Family and secondary city demand 	Breeding, feeding, aggregation, and marketing



Production Value Chain	Region	Justification	Specific Issues
	Namangan, and Ferghana	<ul style="list-style-type: none"> Nutritive potential and income generation in poorer rural areas, especially for women 	
Small ruminants	Navoi, Karakalpakstan, Bukhara, Kashkadarya, and Samarkand	<ul style="list-style-type: none"> Market potential Use of natural pastures: low-cost source of feeding Role of small ruminants for communities living in dry steppe and semi-desert areas (two-thirds of the country's territory) Environment and pasture rehabilitation 	Pasture management, including pasture crops; animal productivity; traceability; and labelling
Bee keeping	Jizzakh, Kahskadarya, Sukhandarya, Andijan, Namangan, and Ferghana	<ul style="list-style-type: none"> Rural income generating activities in mountain and rainfed areas Unsaturated domestic market and export potential 	Practices and technologies, marketing, labelling, quality control and certification
Silk	Ferghana Karakalpakstan	<ul style="list-style-type: none"> Income generating activities for rural women Export potential 	Practices and technologies; marketing

51. The project will pay particular attention to smallholder farmers, especially women, and their participation in productive partnerships. The project's economic and financial analysis shows that a 'business as usual' approach to the existing smallholder farm model would leave the sector stagnant. The project would not achieve its objectives and would have limited impact on the financial viability of local farming systems. The analysis showed that a deep transformation of the farming system is required and new business models should be introduced in the livestock sector allowing smallholder farms to acquire better access to markets and to cheaper fodder and feed.

52. The project will contribute to modernizing the smallholder farming system, helping them move away from a subsistence livestock farming, focused on self-consumption and marketing of small surpluses. The LSA, proposed under Component 1, will help determine the most viable business model in different subsectors. Subprojects will include activities and investments to support the transformation of the smallholder farming systems into a fully market-oriented farming entrepreneurship model. This will involve either grants to individuals within an informal group or grants to legally established groups for training and advisory services on all aspects of animal health, husbandry and marketing including demonstrations on the use of improved seed and animal breeds. The curriculum of training and advisory services will be guided by the results of the beneficiary feedback collected regularly. Female farmers will be prioritized to participate in training and to receive technical advice. The grant will be combined with credits under Subcomponent 2.1 for animal purchase and farm equipment and infrastructure improvement, including housing, handling and storage, waste management and biogas facilities. The project will support a broad information sharing program to ensure all interested smallholders have information and understanding of how to access support from the project.

53. The project will also facilitate smallholder farmers' connection with more modern and formal



marketing channels. As past and ongoing experience with different agro-processors in the country shows, this will entail organizing smallholders in some form of farmer groups that would be able to enter into more formal contractual arrangements and to strengthen their level of professionalism to meet market requirements. In the dairy sector for instance, processors are already collecting milk from smallholder farmers but they are concerned about the low quality of milk (fat and nutrient content, bacteriological quality) and the limited reliability of supply. A better organized collection system, with cooling tank shared by small groups of farmers, as well as improved quality of milk could help strengthen smallholder farmers' connection with milk processing factories and increase milk collection. Similar forms of integration of service delivery could certainly be extended to other livestock subsectors (beef, poultry, beekeeping, and so on).

54. When needed, it will support the creation of farmer groups to achieve economies of scale, efficient aggregation, and compliance with market requirements. Partnerships will in most cases be built around a processor wishing to participate in the project to improve the consistency and quality of its supplies from farmers. The project will consider different models of aggregation of smallholder farmers' production through clusters of private actors or private farms and agro-processors acting as aggregators and leaders of productive and marketing partnerships.

55. For smallholder farmers to access credit and be able to engage in more formal contract farming and marketing arrangements, the project will help them acquire a more formal legal status, either individually as registered *dehkan* farmers or collectively as economic cooperatives, legally recognized by the Uzbek Law on Cooperatives (1998). This law provides farmers with a legal basis to establish cooperatives based on voluntary membership of at least three people with similar income generating activities. Cooperative registration is a simple process under the authority of the district government (*Hokimiyat*). Cooperatives are eligible to receive bank loans and to apply for allocation of available land areas to local Hokim's office. In case of loans, the collective assets of the members would be registered as collateral and the members' fiscal responsibilities for the loan are distributed according to their share in the cooperative. Learning from ongoing experience piloted on a small scale, a dairy cooperative of 20 to 50 households from one village could acquire cooling tanks to facilitate milk collection and improve the quality of milk delivered to dairy processors.

56. The project will also help male and female smallholder farmers prepare for and take advantage of the ongoing land reallocation process progressively undertaken by the Government. In 2016, 170,000 ha of cotton/wheat land have been converted to production of other crops, and a new resolution is under preparation to specifically reallocate land to production of fodder. As shown by the project's economic and financial analysis, transforming the smallholder farming system will imply improving animal feeding and thus access to fodder. Producing on-farm fodder is therefore critical, as smallholders cannot rely on purchasing animal fodder and feed only. Accessing land will be a critical element for smallholders to develop a new business model. By developing a business plan and being integrated in productive and marketing partnerships, smallholder farmers would be in a position to register as formal farming entities and apply for land allocation at their district government.

57. **Component 3: Project Coordination, Management, and Monitoring and Evaluation** (US\$5.2 million IDA) will finance (a) project management, including coordination and supervision of the implementation, FM, procurement, M&E, and Grievance Redress Mechanism (GRM); (b) impact assessments at midterm review and before project closure; and (c) training of project beneficiaries on safeguards requirements and awareness raising campaigns on labor practices in agriculture.



58. This component includes the provision of goods, TA and training for the implementation of the project (including for FM, procurement, disbursement, and M&E) and financing of Incremental operating costs. The project will support the establishment within the RRA of a project dedicated team, as described in annex 2, and the logistics and operating costs of the RRA, including technical, fiduciary and safeguards supervision of project execution. It will finance training and awareness raising activities on environmental and social safeguards, including on labor practices in agriculture and compliance with national legislation against child and forced labor. The subcomponent will also support information campaigns on project activities and modalities to access the credit line and the grant mechanism, especially for small producers and women. It will also support regular surveys to collect beneficiary feedback on project activities and accessibility.



ANNEX 2: IMPLEMENTATION ARRANGEMENTS

COUNTRY: Uzbekistan Livestock Sector Development Project

A. Project Institutional and Implementation Arrangements

1. **Project Management will be under the responsibility of the RRA, MAWR's specialized agency which has extensive experience in implementing donor-funded projects.** The RRA is a specialized organization that was created under the MAWR to implement agriculture and rural investment projects. It has implemented a number of donor-funded projects, including the Bank-funded RESP I and II in the past, and is currently implementing the HDP and the Global Environment Facility Sustainable Agriculture and Climate Change Mitigation Project. It is also in charge of implementing International Fund for Agricultural Development (IFAD) and Asian Development Bank (ADB) projects in agriculture. The RRA has the capacity and experience to implement World Bank safeguards policies. The Agency is staffed by a number of dedicated teams with responsibility for implementing specific projects. To implement the project, the RRA will recruit a fully dedicated team comprising of a coordinator, fiduciary and legal staff, and technical specialists covering the following areas: livestock sector, value chain and marketing, environmental and social safeguards, and M&E. The Agency will establish regional branches to ensure closer supervision of project's implementation on the ground.

2. The overall project management structure will include: (a) **RRA Director** who will be responsible for overseeing the implementation of the project as part of his overall responsibility for managing multiple donor projects. The Director will be ultimately responsible for performance of the project and reporting to the World Bank and the GoU, including the line Ministries of Agriculture and Water Resources, Economy and Finance; (b) **LSDP Project Manager** - a dedicated full-time manager who would be assigned within the RRA and be responsible for day-to-day management of the project. The project manager would report to the Director, RRA. Specialists with specific technical skills responsible for individual components of the project would assist the project manager in M&E and environmental safeguard oversight. The M&E specialist would assist the project manager in monitoring project performance and informing specific performance constraints and issues to enable timely and appropriate corrective actions. The project manager would be supported by a dedicated chief accountant, procurement specialist and operational/administrative staff. RRA regional officers where they already exist in the project provinces or new regional officers that would be established in other provinces will be responsible for implementing the project activities in their respective provinces in accordance with the guidance provided by the project manager and component coordinators. Each regional office will have a regional project manager. Table 2.1 shows the detailed staffing proposed for the RRA for the central level and the regional branches:

3. **The project will be implemented based on a POM which will be approved by the Government and reviewed by the Bank for no objection.** The POM will include: (a) the project's overall operating and decision making procedures; (b) the FM and procurement procedures; (c) results monitoring arrangements and reporting requirements; (d) a Credit Line Investment Guidelines (see section 6 below) which will be agreed with the MoF and the Central Bank, and approved by MAWR, then reviewed by the Bank for no objection; and (e) a Grant Operational Manual (see section 7 below) which will be approved by the MAWR and reviewed by the Bank for no objection, in consultation with the EU.



Table 2.1. Proposed RRA Staffing (Central Level and Regional Branches)

Position	Number	Months
Administration and management		
Project manager	1	60
Component 1 coordinator	1	60
Marketing specialist	1	60
Procurement specialist	1	60
Chief specialist on credit line	1	60
M&E specialist	1	60
Chief accountant	1	60
FMS	1	60
Gender specialist	1	60
Livestock specialist	1	60
Safeguards specialist	1	60
Legal advisor	1	60
Regional branches of RRA		
Credit line specialist	13	780
Drivers	13	780
Support personnel		
Translator	1	60
Office manager/Secretary	1	60
Drivers	2	120
Guard	1	60
Cleaner	1	60

4. **For the implementation of Component 1, MAWR will have the responsibility to prepare annual work plans and budgets based on the recommendations of the livestock sector review preparatory studies.** Work plans will define the proposed training program, studies to be undertaken, as well as the list of equipment to be purchased and rehabilitation works to be undertaken. Annual work plans and budget will be discussed with the RRA, the World Bank and the EU. The RRA will be in charge of procurement based on TORs and specifications prepared by MAWR's responsible departments. MAWR will prepare annual reports to summarize activities undertaken and results achieved under Component 1.

5. **To ensure efficiency and transparency in the selection of research subprojects under Subcomponent 1.2 - Activity 1.2.3 'Market-Led Technology Generation and Dissemination', RRA will establish an advisory research group in charge of assessing research proposals against the project's objectives, priorities and targeting strategy.** The approach will follow the existing selection system already in place at the national level under the State Committee for Research for the selection of programs in fundamental research, applied research and innovations. This system is, however, broader than agriculture and it is proposed to create a smaller committee fully dedicated to the project with a mandate of advising RRA and providing guidance in improving proposals to fully comply with the project's objectives and priorities. Calls for proposals will be made public through mass media communication (local TV channels, newspapers, and so on). The advisory group will include representatives of MAWR; livestock, poultry and fishery state research institutes and the State Veterinary Services, as well as independent technical and financial experts. The selection process (calls



for proposals, selection and prioritization criteria, budget ceiling, composition of the committee, and so on) will be further elaborated in the POM.

6. **Under Subcomponent 2.1, the RRA will administer the implementation of the credit line on behalf of the Republic of Uzbekistan, and ensure that the provisions of the Credit Line Investment Guidelines and the subsidiary loan agreements are enforced.** RRA has good prior track record implementing the RESP II and HDP credit lines. The LSDP Credit Line Investment Guidelines (similar to the Rural Enterprise Investment Regulations under the RESP II and HDP) will set forth the eligibility criteria for PFIs, eligible sub-borrowers and eligible subprojects to be financed, detailed withdrawal procedures, and responsibilities of all parties involved in the implementation of the credit line. A PFI will be a commercial bank selected on the basis of a set of PFI Eligibility Criteria, which include compliance with banking laws and prudential norms and regulations, maintenance of a healthy financial status and sound lending policies and procedures. The credit line will be open to all interested commercial banks, which qualify through the due diligence process to be carried out by international consultants in collaboration with RRA. Leasing arrangements may be more attractive than loans in some cases due to lesser collateral requirements. Selection of recipients for the credit line, appraisal of subprojects loans and execution of disbursement and loans will be the responsibility of the PFIs. Training of the PFIs will be carried out by international consultants together with local trainers to ensure transfer of knowledge from RESP II experiences and continuous training. Further detailed responsibilities and implementation arrangements will be set forth in the Credit Line Investment Guidelines.

7. **For the implementation of Subcomponent 2.2, the RRA will recruit a consulting firm to act as a facilitator for the establishment of value chain partnerships and the preparation, implementation and supervision of multi-stakeholder subprojects.** The facilitator will work in close collaboration with PFIs to identify potential aggregators, clusters of agro-processors, private farms and smallholder farmers that could collaborate in preparing investment subprojects where grant for TA could add value to credit for capital investments in equipment and infrastructure. The facilitator will play a key role in helping smallholder farmers get connected to aggregators and markets, and to receive dedicated support to strengthen their capacities in developing market-oriented farming enterprises, increasing productivity and complying with market requirements. The Grant Operational Manual will contain a detailed description of the operating principles and evaluation criteria for the subproject schemes.

B. Financial Management

8. **The RRA will be responsible for the overall FM arrangements of the proposed project, regional branches of the RRA will not be involved in FM aspects of the project.** The RRA has extensive experience in the implementation of the World Bank financed projects. The FM assessment of the RRA was carried out and concluded that FM arrangements at RRA, including systems of budgeting, accounting, financial reporting, auditing, and internal controls, will be Satisfactory to the Bank after completion of agreed actions. The overall residual FM risk for the project is *moderate*, and combined *Fiduciary* risk rating is *moderate* as well.

9. The following capacity building actions have been agreed to be implemented:

Table 2.2. FM Capacity building

Actions for Capacity Building	Responsible	Completion Date
Develop POM including a dedicated FM chapter satisfactory to the World	RRA	By effectiveness



Actions for Capacity Building	Responsible	Completion Date
Bank. The FM chapter of the POM should describe the LSDP internal control, budgeting, external auditing, financial reporting and accounting policies, and procedures and funds flow.		
Hire dedicated qualified FMS to support implementation of the project.	RRA	By effectiveness
Acquire up-to-date accounting software that meets the World Bank-financed project requirements, including ability to generate IFRs, withdrawal applications, statement of expenditures (SOE), and annual financial statements and other statutory reports required by laws and regulations. The accounting software should have multi-user and dual currency (U.S. dollar and Uzbekistan soum) functionalities.	RRA	By effectiveness

10. **Staffing.** FM staffing is adequate in the RRA in terms of skills, experience and number of persons. From FM perspective RRA has FM Specialist and one Chief Accountant who have solid knowledge in implementing Bank financed projects.

11. **Budgeting and planning.** The annual budget of the project will be based on the final PP that is to be discussed and agreed with the RRA Director, and approved by the World Bank. All changes to the PP will be reviewed by the RRA Director and approved by the World Bank. The Director, the FMS, and the procurement specialists and other specialist if necessary will be involved in the preparation of the annual budget. These budgets will form the basis for allocating funds to project activities and requesting counterpart funds from the Government, if appropriate. The budgets will be prepared according to the IFRs format (disbursement categories, components and activities, and broken down by quarter).

12. **Accounting.** Project financial statements will be prepared in accordance with the Cash Basis International Public Sector Accounting Standards (IPSAS). The POM will reflect internal control, budgeting, external auditing, financial reporting and accounting policies and procedures. All supporting documents will be maintained in files for ready access by auditors and Bank staff. The project's chart of accounts will track all transactions and report them according to financing sources and project components, as well as type and category of expenditure. Accounting data 'back-up' is conducted every 2 weeks and 'back-up' data copied into 2 memory sticks one is kept outside of the RRA office in the house of Chief Accountant and another one is kept in the office of RRA Project Manager in the safe-deposit. This practice will continue under proposed project as well.

13. RRA will acquire an up-to-date software designed to meet the World Bank-financed project requirements, including ability to generate IFRs, withdrawal applications, SOE, and annual financial statements. The accounting software should have multi-user and dual currency (U.S. dollar and Uzbekistan soum) functionalities. The accounting software should also have: (a) in-built controls that prevent charges to contracts that exceed the entered contract amounts, this is currently monitored manually through cross-checks; (b) system alerting on deadlines of bank guarantee letters provided by the suppliers, so in the case if there is a need for extension of bank guarantee letter this is executed before the due deadline.

14. **Internal controls.** The RRA's internal controls system was assessed to be capable of providing timely information and reporting on the project. The RRA has POM developed under on-going bank financed projects which is satisfactory to the Bank and followings are well elaborated in the POM: controls for safeguard of assets, segregation of duties, authorization of transactions, review and approval of invoices, contract management and others, however, RRA should develop POM specifically



for this project. The RRA will conduct monthly formal reconciliation of the World Bank disbursement data with project's accounting records via Client Connection.

15. **Cofinancing.** Government cofinancing will be in the form of tax exemptions. RRA will be exempted from paying VAT, Import VAT, Excise tax, Custom duties and Road fund charges on vehicles on goods, works, non-consulting services, consultants' services and incremental operating costs which will be procured under the project. Apart from Government Co-financing, the EU is expected to provide €15 million (US\$16.0 million equivalent) grant which will be used to fully finance certain activities under Components 1 and 2 that will not be financed by neither the IDA Credit nor the IBRD Loan. For the proposed EU grant, if approved, an additional DA will be opened. If for any reason the EU financing does not materialize, the GoU will undertake appropriate steps to identify alternative sources of finance.

16. **Credit lines.** RRA has extensive knowledge working with credit-lines, particularly under on-going HDP and under closed RESP II.

17. **Financial reporting.** For ongoing projects, the RRA prepares quarterly IFRs which includes: (a) summary of sources and uses of funds; (b) uses of funds by project activities; (c) designated account (DA) statements; and (d) disbursement summary. The RRA is in full compliance with financial covenants, that is, IFRs and annual audit project financial statements are generally submitted on time and found to be satisfactory for the Bank. Project-management-oriented Interim Unaudited Financial Reports (IFRs) will be prepared under the proposed project as well. The RRA will produce a full set of IFRs every calendar quarter throughout the life of the project. The format of IFRs has been agreed during the assessment and includes: (a) project sources and uses of funds; (b) uses of funds by project activities; (c) DA statements; (d) disbursement summary; and (e) a SOE withdrawal schedule. IFRs will be produced by the accounting software. These financial reports will be submitted to the Bank within 45 days of the end of each calendar quarter.

18. **External audit.** The proposed project audit will be conducted (a) by independent private auditors acceptable to the Bank, on terms of reference (TOR) acceptable to the Bank, and selected by the RRA; and (b) according to the International Standards on Auditing issued by the International Auditing and Assurance Standards Board of the International Federation of Accountants. The TOR will include activities involving (a) audits of financial statements, (b) assessments of the accounting system, and (c) a review of the internal control mechanisms. The following table identifies the required audit reports that will be submitted by the RRA together with the due date for submission.

Table 2.3. Audit Reports

Audit Report	Due Date
Project Financial Statements The Project Financial Statements include Project Sources and Uses of Funds, Uses of Funds by Project Activities, SOE Withdrawal Schedule, DA Statement, Notes to the Financial Statements, and Reconciliation Statement.	Within 6 months of the end of each fiscal year and also at the closing of the project

19. The audited project financial statements will be disclosed to the public in a manner acceptable to the Bank. Following the Bank's formal receipt of these statements from the borrower, the Bank makes them available to the public in accordance with the World Bank Policy on Access to Information.



C. Disbursements

20. **Flow of funds and disbursement arrangements.** The Loan and the Credit will disburse through transaction-based disbursement methods that include: (a) advances to the DA, replenishments to the DA on the basis of SOEs for all expenses, (b) payments against Special Commitments (c) reimbursement of eligible expenditures pre-financed by the Recipient (against SOEs), and (d) direct payments to third parties. Withdrawal applications will be signed by two persons: (a) an authorized representative of the Borrower (MoF); and (b) another designated official in the RRA. The project will be required to adopt e-disbursements.

21. **Thresholds:** The Minimum Value of Applications for Direct Payment, Reimbursement and issuance of Special Commitment will be US\$ 400,000 for the Loan and US\$ 1 million for the Credit. Two DAs will be opened for the project, one for the Loan and one for the Credit, in a commercial bank/financial institution acceptable to the Bank/Association. Maximum ceilings of the DAs will be US\$ 2 million for the Loan and US\$ 5 million for the Credit.

D. Procurement

22. Procurement for the proposed project will be carried out in accordance with the World Bank's "Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011, revised July 2014 (Procurement Guidelines); and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011, revised July 2014 (Consultant Guidelines) and the provisions stipulated in the Loan and Credit Agreements. If there is a conflict between the Government decrees, rules and regulations and the Bank Procurement and Consultant Guidelines, then Bank Guidelines shall prevail. In addition, the project will also follow "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants dated October 15, 2006 and revised in January 2011 and as of July 1, 2016".

23. By effectiveness, the RRA will recruit an experienced procurement specialist fully dedicated to the project. For each contract to be financed by the Bank, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frame are agreed between the Borrower and the Bank project team in the PP before starting any procurement activity under the project.

24. The items to be procured under the project would include the following:

- (a) Works include the following: (i) office renovation; (ii) field works (land leveling for instance) for demonstration plots, and so on. These are mainly subject to the national competitive bidding (NCB) procedure.
- (b) Goods: (i) procurement of office furniture and vehicles; (ii) equipment for demonstration plots, (iii) goods for strengthening research institutes, and so on. These goods shall be procured through international competitive bidding (ICB).
- (c) Incremental Operating Costs to be procured include the incremental expenses incurred by the RRA on account of project implementation, management, monitoring and supervision,



including office supplies, office equipment maintenance, communication, local travel, vehicles operation and maintenance, commercial bank charges, salaries of the support staff of RRA, but excluding salaries of civil servants of the Borrower, as such expenditures are set forth in the RRA annual budget, satisfactory to the Bank and such other expenditures as may be agreed upon by the Bank.

25. **Consulting services and training.** Consulting services required under the project would include TA in such areas as livestock sector development, training and capacity strengthening workshops, technical advisory services (animal health, feeding and husbandry).

26. The project disbursement through the credit lines will follow the Procurement Guidelines para 3.13 following commercial practices. The sub-borrowers may use commercial practices detailed in the POM that is acceptable to the Bank. The Credit Line Investment Guidelines used under the RESP II shall be used as basis here. Taking into account the earlier experience, it could be examined whether the Bank's review thresholds could be considered in line with the objectives of the project. These thresholds will be indicated in the PIP as part of the above-referred POM.

27. Procurement under the TA part of the project (Component 1 and Subcomponent 2.2) will be carried out by RRA. The Bank's ICB Standard Bidding Documents, Standard Requests for Proposals, sample NCB or shopping documents will be used. Domestic preference according to clause 2.55 and Appendix 2 of the Procurement Guidelines will apply to goods contracts.

28. **Record keeping.** Under the designated implementation agency for this project, RRA, the procurement specialist is responsible for maintaining procurement records. Separate files should be maintained for each contract (including both hard and electronic copies). All the procurement documents (including bids, technical and financial proposals of consulting services) should be kept till the end of the project and then transferred to the Government Archives. The originals of various valuable documents (such as bid security, performance guarantee, and advance guarantee) should be kept in the safe by the RRA's chief accountant.

29. **Risk analysis and mitigation measures.** As part of project preparation, an *Assessment of the Procurement Capacity of the RRA* was carried out during July 2016 and the Procurement Risk Assessment Management System was archived accordingly. The recent Country Integrated Fiduciary Assessment and Public Expenditure and Financial Accountability review revised the procurement environment to be considered a high risk and no major change in public procurement environment was noticed recently compared to the findings of the country procurement assessment report (Report # 25653 UZ) conducted in 2003 (by the Bank and ADB). The subject study identified the following weaknesses in the public procurement system in Uzbekistan: (a) absence of a unified legislative framework; (b) inefficient and non-transparent procurement practices; (c) absence of a single institution with oversight or regulatory authority on public procurement practices; (d) weak capacity to deal with bidders' complaints; (e) lack of independent scrutiny of contracts; (f) lack of comprehensive anti-corruption measures; and (g) low skills/capacity of the staff handling public procurement at every administrative level. Furthermore, the Bank noted recently the difficulty in obtaining a bank guarantee for bid security and performance security by local bidders and non-availability of alternative instruments for such purpose in the country's banking system, in particular in case of Joint Ventures. The current risks identified for the project and the appropriate mitigation measures are summarized in the table below:



Table 2.4. Summary Risk Assessment

Description of Risk	Risk Rating	Mitigation Measures	Residual Risk Rating
The lack of a unified legislative framework, inefficient and non-transparent domestic modes of procurement in the country	S	All procurement will be subject to the Bank's rules/procedures. The national system of procurement will affect the bidding process minimally. Though the import contracts expertise requirement affects the project delaying the signed contract implementation significantly	M
Contract registration requirements are arduous and take a long time which may seriously impact timeliness of procurement and contract implementation	S	The Bank team will monitor contract award notification and publication of contract award details as per Bank Procurement and Consultant Guidelines. The team will monitor receipt of signed prior review contracts and take timely action to ensure provisions of Bank Guidelines are followed, and Bank will take remedial action such as misprocurement declaration if the delay is more than 42 days following the Bank's NOL to the Bid Evaluation Report or to negotiated contract.	M
Government officials may intervene in the procurement decisions under the project	H	The POM shall clearly decide the responsibilities of the project stakeholders in the procurement process. The Bank's procurement procedures shall be followed strictly. Complaint handling system shall be in place and defined in the POM duly.	S
Perceived level of corruption is high at the country level.	S	Strict application of the Bank's Procurement Guidelines reduces the risk significantly. Also, the following specific actions would be included into the POM: a. Require each staff involved in procurement, including each member of a tender or evaluation committee, to certify in writing that his or her involvement does not create any conflict of interest, that is, relationship with a supplier or consultant. b. Put in place the necessary mechanisms to ensure that suppliers and contractors are paid according to their contract terms without any unjustified delays. c. To bring to the Bank notice each and every complaint received from any supplier or consultant relating to the procurement process, and to record and dispose of these complaints promptly and diligently. d. To maintain up-to-date procurement records and to make these available to the Bank staff, auditors.	M
Overall	S		M

Note: H: High; S: Substantial; M: Moderate; L: Low.

30. The POM will reflect that any price verification and reasonableness of recommended contract value will be carried out as part of bid evaluation and the contracts will be awarded and signed as soon as Bank's no-objection is issued and signed contract and Performance Security (whenever required) is submitted to the Bank within 6 weeks of Bank's no-objection to the Bid Evaluation Report. The PIP will include the complaint registration and handling mechanism to ensure complaints are treated fairly and



openly. Any complaints concerning the procurement or other aspects of project implementation have to be registered and dealt within a time frame agreed in the PIP. The POM will elaborate on the appropriate mechanisms for procurement according Bank Guidelines. The General Procurement Notice and advertisement of procurement opportunities will be published on the RRA's website and Uzbek media. The ICBs and major consultancy services will also be published on the Bank's external website and UN development business.

31. **Procurement supervision and procurement post review.** Routine procurement reviews and supervision support will be provided by the procurement specialist based in the region/country office. In addition, two supervision missions are expected to take place per year during which ex-post reviews will be conducted for the contracts that are not subject to Bank prior review on a sample basis (for example, 20 percent in terms of number of contracts). One ex-post review report will be prepared per fiscal year, including findings of physical inspections for not less than 10 percent of the contracts awarded during the review period.

32. **Disclosure.** The following documents shall be disclosed in the RRA website: (a) PP and updates, (b) invitation for bids for goods and works for all ICB and NCB contracts, (c) request for expression of interest for selection/hiring of consulting services, (d) contract awards of goods and works procured following ICB/NCB procedures, (e) list of contracts/purchase orders placed following shopping procedure on a quarterly basis, (f) short list of consultants, (g) contract award of all consultancy services, (h) list of contracts following direct contracting (DC) or selection based on consultant's qualification (CQS) or single-source selection (SSS) on a quarterly basis, (i) monthly physical and financial progress of all contracts, and (j) action taken report on the complaints received on a quarterly basis. The works bidding documents shall include a clause to put up a notice board in the construction site disclosing the contract details (description, contractor name and contract amount, starting date, completion date, physical progress and financial progress).

33. The following details shall be sent to the Bank for publishing in the Bank's external website and UNDB: (a) PP and updates, as approved/cleared by the Bank; (b) invitation for bids for procurement of goods and works using ICB procedures, (c) request for expression of interest for consulting services with estimated cost more than US\$300,000, (d) contract award details of all procurement of goods and works using ICB procedure, (e) contract award details of all consultancy services with estimated cost more than US\$300,000, and (f) list of contracts/purchase orders placed following SSS or CQS or DC procedures on a quarterly basis.

34. **PP.** RRA has developed a PP covering procurement activities for the entire period of project implementation. The PP is consistent with the implementation plan, which provides information on procurement packages, methods and Bank review requirements. It will be available in the RRA's project database and will be updated in a manner agreed upon with the Bank project team, annually or as required, to reflect the needs and improvements in the implementing agencies' institutional capacity. The PP will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity and has to be reviewed by the Bank.

35. The PP will be published on the Bank's external website and RRA website following the negotiations. The Borrower shall advise if they would or would not disclose the cost estimates while disclosing the PP. No PP would be required for the credit line component where such planning is not relevant.



Table 2.5. Procurement Plan

UZBEKISTAN

Livestock Sector Development Project

PROCUREMENT PLAN - GOODS AND WORKS

(for the first 18 months of project implementation)

Date of PP: April 26, 2017; Update No. n/a; Date of World Bank NOL: April 27, 2017.

Description	Plan vs. Actual	Procur. Method	World Bank Review (Prior/Post)	Date of Draft BD/ITQ	Contract Signature	Date of Contract Completion
Goods						
Office furniture and equipment for RRA and regional PIUs	Plan	ICB	Post	02.09.2017	20.01.2018	20.02.2018
	Actual					
Vehicles for RRA and regional PIUs (15 sedans)	Plan	ICB	Post	02.10.2017	20.02.2018	31.03.2018
	Actual					
Accounting software for RRA	Plan	Shopping	Post	02.10.2017	31.12.2017	31.12.2017
	Actual					
Equipment for veterinary services ^a	Plan	ICB	Post	02.01.2018	31.12.2018	31.12.2018
	Actual					
Works						
Renovation of RRA and regional	Plan	Shopping	Post	02.01.2018	31.12.2018	31.12.2018
PIUs offices	Actual					

Note: PIU = Project Implementation Unit.

a. to be determined by OIE assessment.

UZBEKISTAN

Livestock Sector Development Project

PROCUREMENT PLAN - CONSULTANTS

(for the first 18 months of project implementation)

Date of PP: April 26, 2017; Update No. n/a; Date of World Bank NOL: April 27, 2017



Description	Plan vs. Actual	Firm or Ind.	Select. Method	World Bank Review	Request for Exp. of Interest	Draft RFP (incl. TOR, Short List)	Preparation of the RFP/REOI Package	Contract Signature	Date of Contract Completion
Development of the veterinary services TA	Plan	Firm	QCBS	Post	02.10.2017	01.11.2017	10.11.2017	25.03.2018	31.12.2018
	Actual								
Training for the PFIs	Plan	Firm	CQS	Post	02.01.2018	20.01.2018	30.01.2018	10.03.2018	31.12.2018
	Actual								
Financial Audit of LSDP for 2017, 2018, 2019	Plan	Firm	LCS	Post	01.10.2017	15.10.2017	30.10.2017	30.01.2018	31.12.2019
	Actual								

Note:

ICB - International Competitive Bidding

NCB - National Competitive Bidding

DC - Direct Contracting. To be reflected and agreed in the PP in advance.

The Borrower would need to secure the requirements for:

DC as outlined in Procurement Guidelines (Para. 3.7).

QCBS - Quality and Cost Based Selection

QBS - Quality Based Selection

LCS - Least Cost Selection

FBS - Fixed Budget Selection

CQS - Selection Based on Consultants' Qualification

SSS - Single Source Selection

IC - Individual Consultants



Table 2.6. Threshold for Procurement Methods and Bank's Prior Review

Expenditure Category	Contract Value Threshold (US\$)	Procurement Method	Contracts Subject to Prior Review (US\$)
Goods (including technical services)	>=100,000	ICB	ICB contracts >1,000,000
	<100,000	Shopping	First contract >100,000
	NA	DC	All DC contracts
Works	>=1,000,000	ICB	ICB contracts >=5,000
	<1,000,000	NCB	n/a
	<200,000	Shopping	n/a
	N/A	DC	All DC contracts
Consultant Services (including training)	>=200,000	QCBS/QBS/LCS/FBS a/b/	>=500,000 for firms; all SSS contracts;
	<200,000	CQS	
	NA	SSS	
	NA	IC	>=200,000 for individuals and all SSS contracts

Note:

a/ Shortlist may compose entirely of national consultants for assignments of less than US\$300,000 equivalent per contract.

b/ As appropriate, these methods may be adopted for assignments costing less than US\$200,000.

ICB – International Competitive Bidding

NCB – National Competitive Bidding

DC – Direct Contracting

QCBS – Quality and Cost Based Selection

QBS – Quality Based Selection

LCS – Least Cost Selection

FBS – Fixed Budget Selection

CQS – Selection Based on Consultants' Qualifications

SSS – Single Source Selection

IC – Individual Consultants



36. **Designated anti-corruption measures.** The Bank's Guidelines On Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants dated October 15, 2006 and revised in January, 2011 and the transparency and disclosure provisions of the Bank's Procurement and Consultants Guidelines (published in May 2004 and revised in October 2006) will apply. Certain revisions in the POM shall be considered as has been indicated above.

E. Environmental (including safeguards)

37. **Project potential environmental impacts.** The proposed project activities (upgrading/construction of veterinary analytical laboratories; investments in improving the animal herd; purchasing of inputs and machinery for fodder and feed production; animal shelter improvement; and so on) as well as subprojects to be financed under Component 2 (agro- and livestock processing; milk collection and purchasing cooling equipment; poultry; renewable energy activities; biogas installations; and so on) might generate a series of various environmental and social impacts. These impacts would be associated with the following: (a) increased pollution with wastes, noise, dust, and air pollution, health hazards and labor safety issues, and so on, due to civil works; (b) increased ground and surface waters pollution due to use of agro-chemicals and silage production; (c) threats to human health and wildlife due to improper handling of treated seeds, fertilizers and pesticides, and due to inappropriate management and disposal of livestock vaccines and other drugs; and so on. All of them are expected to be typical for agricultural production, small scale construction/rehabilitation works, or for various livestock processing activities, temporary by nature and site specific, and can be easily mitigated by applying best construction and/or agro-processing practices and relevant mitigation measures. At the same time, improved fodder and livestock production, as well as improved veterinary services, can reduce the cost of various negative externalities including desertification of arid areas, GHG emissions, and zoonotic disease incidence.

38. **Triggered World Bank OPs.** The project triggers the OP 4.01 as it may generate some adverse environmental and social impacts (see section F below). The project will not support any activities that would trigger OP 4.04 on Natural Habitats. Furthermore, its indirect impact could lead to a reduction in number of animals while increasing their productivity, and, respectively, reduction of the pressure on the pastures that would be beneficial in terms on maintaining and/or improving status of natural habitats. With regard to OP 4.09 on Pest Management, although the project will not support purchasing and use of mineral fertilizers and pesticides, farmers routinely use them while producing animal fodder and treating animals to control ticks and other parasites. The project will promote their safe usage through public awareness and training for farmers. None of the other World Bank OPs are triggered.

39. **Project category and EA instruments to be applied by the project.** In accordance with the Bank's safeguard policies and procedures, the project is classified as Category B for which an EA with Environmental and Social Management Plan (ESMP) is required. As the project will operate through a credit line relying on a demand-driven approach, subprojects will be identified during project implementation. None of the project activity or subprojects to be financed through the credit line would however cause significant environmental impacts which may fall under the Category A projects and for which a full environmental impact assessment (EIA) would be required.

40. **ESMF.** As project activities and subprojects will require a simple and/or a partial EA and/or preparing an ESMP, an ESMF has been prepared by a local consultant based on the following elements:



(a) analysis of the existing national legal documents, regulations and guidelines; (b) World Bank safeguard policies, as well as other World Bank guiding materials; (c) existing ESMFs for similar World Bank projects; and (d) results of consultations with the representatives of stakeholders and all interested parties. The ESMF was submitted to public consultation on March 27, 2017 and disclosed in-country on April 10, 2017,¹² and at the Bank's InfoShop on April 11, 2017.

41. The ESMF provides guidance on the followings: (a) the national and World Bank safeguards rules and procedures; (b) environmental and social impacts associated with the proposed investments and generic mitigation measures; (c) guidelines on conducting sub projects environmental screening, as well as EIA, including mitigation measures and monitoring activities for different types of activities; (d) roles and responsibilities in EA process and in supervision and reporting; (e) ESMP and ESMP Checklist to be applied within the EA process; and (f) capacity building activities to ensure an efficient ESMF implementation. The project TA activities will include training, preparing and disseminating guidebooks and implementing demonstrational activities on the following: (a) education of veterinary specialists on managing sector environmental and social impacts; (b) sound manure management; (c) practicing silage production and measures to ensure appropriate handling and disposal of the silage waste; and (d) promoting Integrated Pest Management while producing fodder and safety issues during usage of acaricides in livestock production; and (e) training for PFIs in conducting subproject EA.

42. **EA Implementing arrangements.** The ESMF and subproject ESMPs implementation will remain under the direct responsibility of the PFIs, grant recipients and sub-borrowers, including responsibilities for supervision and monitoring of selected grants and subprojects, while overall coordination of these activities will be under the RRA's responsibility. The RRA has prior extensive experience in implementing Bank-financed projects and its safeguards monitoring performance has been satisfactory. The RRA will assess project proposals, confirming the Safeguards Category and type of EA to be conducted for project activities and subprojects proposed for financing by the PFIs. It will review the set of documents prepared by PFIs and sub-borrowers, including subprojects' screening checklists as well as all necessary permits and clearances needed for project implementation. It will complete the Environmental Screening Checklist before final decision on project's financing. During subproject appraisal, the RRA jointly with the PFIs will ensure that proposed subprojects are in compliance with all environmental laws and standards, as certified by the relevant local or national authorities, and the Environmental Guidelines. It will ensure close supervision and monitoring of subprojects' execution, including undertaking regular field visits. In case of non-compliance with expected mitigation measures during project implementation, the RRA can take the decision to suspend funding. All relevant EA documents and permits should be kept in each sub-borrower document file maintained by the RRA. The institutional capacity assessment has shown that the RRA has basic capacities to perform its duties concerning EA, social management and enforcing the ESMF provisions. Due to the additional workload, the RRA will however recruit an additional environmental specialist and a social specialist fully dedicated to the project and will provide training on Bank's safeguards requirements.

43. **Environment safeguards specialist.** By effectiveness, the RRA will recruit an experienced environmental safeguards specialist for the whole duration of the project. He/she will be in charge of overall coordination and reporting on the ESMF and ESMPs implementation, inspection of environmental compliance at work sites, advising project participants and PFIs on environmental issues, coordination of the overall environmental monitoring and training program. The environment specialist

¹² On RRA website: www.rra.uz



will be responsible for assisting the PFIs in reviewing ESMPs, monitoring their implementation, advising and guiding PFIs on specific environmental issues and management options and ensuring that cumulative impacts are addressed. The environment specialist will identify training needs and organize relevant capacity building activities to ensure that PFIs and sub-borrowers integrate into bidding documents environmental requirements for physical investments, analyze contracts in terms of environmental management, and monitor implementation. The environment specialist will be responsible for periodically collecting information on the project's environmental residual and cumulative impacts.

44. **Main responsibilities of PFIs.** PFIs will be responsible for assisting sub-borrowers in preparing environmental screening forms, identifying potential subprojects environmental issues, and in approving EA reports and ensuring their implementation. PFIs will be required to ensure that borrowers conduct the appropriate EIA for each subproject and, where necessary, prepare an ESMP. They will assess subproject proposals and categorize them as per safeguards categories. They will identify EA type to be conducted and review the set of EA documents prepared by sub-borrowers (subprojects' Information Sheet or Project Summary Sheet as well as all necessary permits and clearances needed for project implementation). They will then complete the Environmental Screening Checklist and make a decision on subproject eligibility. When needed, PFIs will consult the RRA's environment specialist in order to make the final decision on the subprojects' environmental category and proposed EA instrument. During subprojects implementation, PFIs will supervise ESMP implementation as part of their monitoring responsibilities. All relevant documents and permits should be kept in each sub-borrower document file maintained by the banks, and be made available for review by IBRD/IDA representatives.

45. **Integration of ESMF requirements into project documents.** The POM will detail the criteria for the selection of sub-loans, eligible investments, terms and conditions of the sub-loan and other modalities and agreements to access project's funding. The POM will also include rules and procedures for subprojects' EA that are detailed in the ESMF. The subproject ESMPs will be incorporated into contracts for approved investments, both into specifications and bills of quantities. Contractors will be required to include the associated costs into their financial bids.

46. **World Bank EA prior review.** The EA documentation for the first three Category B subprojects from each PFIs will be subject to prior review by the World Bank.

47. **EA capacity building and environmental awareness raising.** RRA's environment specialist will be trained in World Bank safeguards requirements, and in ESMF and EA implementation. He/she will visit similar World Bank projects in other countries in the region. The project will undertake a training for PFIs, potential beneficiaries and other interested parties on environmental safeguards and ESMF implementation. A broader public outreach campaign on environmental management issues will be conducted. During project supervision the World Bank will assess the implementation of the ESMF, and if required, may recommend additional capacity building activities.

48. **PFIs loan officers.** Each participating PFI will designate an officer responsible for environmental aspects, review and approvals, who will be trained on the following issues: (a) national and World Bank requirements for EA; (b) screening and scoping procedures including checklists of potential environmental impacts of the proposed activities and potential agro-and livestock processing activities; and (c) main provisions of ESMP for proposed subprojects, including mitigation and monitoring requirements. The training program will be practical and include case studies, based on actual loan



proposals and types of business activities supported by the project. It should also cover an explanation and practical application of the environmental standards and ESMF forms. Field visits will also enable PFIs' environment officers to assess potential negative impacts and propose mitigation measures. RRA's environment specialist and PFIs' environment officer will, in turn, advise farmers and agro-entrepreneurs on environmental risks prevention and mitigation, and should promote sustainable agriculture and processing technologies and practices, including waste management, carbon sequestration and GHG emission reduction.

49. **Training for veterinary specialists on managing sector environmental and social impacts** will cover environmental issues of project activities, prevention of spreading animal diseases, veterinary waste management in accordance with existing national guidelines, "International Best Practice in Safety of Research Laboratories" developed by the US National Institutes of Health, proper and safe handling and storage of contaminated materials, health protection and feeding of animals; issues of diagnostics, prevention and treatment of brucellosis, tuberculosis, echinococcosis, anthrax, foot-and-mouth disease, pox, issues of appropriate disposal of carcasses of dead animals, and so on.

50. The project will develop a series of training for beneficiaries on the following topics:

- **Manure management**, including collection, transport, storage, treatment, and utilization to reduce migration of contaminants to surface water, groundwater, and air. They will be based on internationally recognized guidance (for example, Food and Agriculture Organization of the United Nations [FAO] references), including for instance measures to reduce enteric emission, appropriate manure application per hectare, and so on.
- **Silage production**, including measures to ensure appropriate handling and disposal of silage sludge, preventing soil and groundwater pollution. In Uzbekistan, there is a tradition of maize silage production in large private farms that could be extended to small-scale farmers as a way to increase animal feeding. Training on best silage practices will however be critical to prevent excessive humidity that may lead to toxic silage sludge.
- **Integrated pest management in fodder production**. Farmers will be trained on adverse environmental impacts and risks of chemical pesticides. The project will promote Integrated Pest Management (IPM), including alternative pest management strategies, pest control methods, safe and controlled application of pesticides, safe, storage and handling and disposal, preparation and implementation of PMP plans as part of EMPs. Relevant publications, booklets and instructions will be developed and published for further use.
- **Good Animal Health Practices and Environment, Health and Safety Guidelines**. Awareness campaign and farmers' training will be organized on better animal health, housing and feeding practices that contribute not only to increasing productivity but also to improving animal welfare. This will include a more targeted use of anti-microbial to mitigate the risk of AMR development and improve public health. Safe working conditions in livestock production will also be covered, including exposure to physical, biological and chemical hazards in confined spaces, safe storage, handling, use and disposal of vet medicinal products. Relevant publications, booklets and instructions should be developed and published for further use.



F. Social (including Safeguards)

51. The project is expected to generate both direct and indirect positive social impacts. Direct positive impacts relate to the anticipated increased livestock production, which will result in creation of new jobs and, respectively, more employment opportunities in rural areas, especially for vulnerable groups and women. This, in turn, will increase income of farmers involved in the livestock sector. Agriculture remains an important sector for the country's economy and has increasingly moved towards crop diversification away from cotton and wheat production. Livestock activities are especially profitable for farms, particularly smaller family-operated farms that tend to be poorer. Indirect positive impacts are expected to range from the overall improvement of business environment in the agricultural sector, improved quality of produce, introduction of advanced agricultural technologies, increased knowledge and skills among farmers on innovative agricultural practices, to contribution to poverty reduction and food safety.

52. **Gender.** The project is cognizant of gender issues and strives to engage women in its activities through the training sessions and participation of women in policy dialogue and support packages for entrepreneurial opportunities (under Component 2). The project will recruit a gender specialist and will include gender-disaggregated measure for project beneficiaries.

53. **Citizen engagement.** In order to effectively engage direct and indirect project beneficiaries, the following activities will be adopted by the project:

- (a) **Policy dialogue** will engage Government representatives, smallholder and commercial farmers, farm associations, women (farmer) groups and other professional networks involved and interested in the livestock production. The dialogue will take place regularly in a form of seminars and consultations. The agenda will be set by the participants. The results of the discussions will be made available to the public and will inform project activities, as well as formulation of the sector strategy.
- (b) **Beneficiaries' feedback** will be collected on extension service and credit line opportunities offered to farmers to assess (i) knowledge gap on innovative technologies and practices, (ii) the quality of the training, and (iii) ease and quality of access to credit. Poor demand could signal a poor quality of training and banking services, which would require further investigation and adjustments. The feedback will also shed light on the market constraints faced by farmers. The feedback will be collected on regularly based on the frequently of activities. The feedback on trainings will be gathered following the training. Information on credit services will be generated annually.
- (c) **Information campaigns** on project activities including credit line services or other activities and opportunities available to beneficiaries.
- (d) **Grievance Redress Mechanism** will encompass the range of issues related to overall project implementation. The PIU will make the results of the GRM public on quarterly basis. The comprehensive project level GRM will be further detailed in the POM.

54. **OP 4.12 involuntary resettlement.** The project does not trigger OP 4.12 Involuntary Resettlement. In order to improve fodder for livestock access to land is critical. Under the project,



however, the following criteria will be used to source necessary additional land. Firstly, only farmers that already own or lease land will be eligible for credit line. Secondly, in cases additional land is necessary, *Hokimiyat's* reserved land will be used for fodder production or pasture development. Resettlement screening procedures are described in the ESMF. The screening allows to ensure that the land is not acquired involuntary and is free of users, tenants or squatters. Concurrently, the project will help smallholder farmers prepare for and take advantage of the land conversion process progressively undertaken by the GoU. In 2015, 170,00 ha of cotton/wheat land was converted to production of other crops. A new GoU's resolution is under preparation to specifically re-assign land to livestock and fodder production. This refers to state-owned land and state-determined classification for the type of land use. The project may utilize this land for smallholder farmers. Construction or improvement of laboratories under Component 1 will occur on government owned land or within existing floor plans and no resettlement impact is expected. The project will closely monitor any civil works to ensure no resettlement take place. The screening procedure will review that the land is not acquired involuntary.

55. **Child and forced labor.** In recent years, there have been concerns raised vis-à-vis labor practices in the agricultural sector, particularly in the cotton sector, in Uzbekistan. The 2016 cotton harvest monitoring carried out by the ILO¹³ concluded that child labor had been almost completely eradicated, and as well had become socially unacceptable. However, the risk of forced labor remains in a context or large scale mobilization of cotton pickers. The GoU is therefore pursuing a number of measures to modernize the agricultural sector and reduce the likelihood of encountering instances of forced labor. This includes diversification in less labor intensive crops and livestock production. The project will support this objective by increasing the number of farms raising small and large livestock in view of increasing and diversifying rural incomes, as well as creating job opportunities in the agro-processing industry. The project includes awareness raising and training of beneficiaries on the applicable legislation and regulation on child and forced labor. The different production and processing segments of the livestock industry do not require large number of workers and large scale mobilization of labor has not been observed in the livestock sector. To mitigate any residual risk in the case, for instance, of private livestock farms also engaged in cotton production and willing to borrow from the credit line, the project will participate in the Third-Party Monitoring carried-out annually for Bank-funded projects.

56. In addition, as described in Annex 1 - section 46, the RRA and PFIs will be required to pre-screened and regularly monitor the activities of all potential project beneficiaries to ensure that they are not related in any form to child or forced labor. Should child or forced labor cases be found, the right of the beneficiary to use the proceeds of the subfinancings will be suspended and terminated, and declared to be immediately due and payable to the PFI. The PFI will be disqualified from further participation in the project's credit line and its entire subfinancing portfolio will be transferred to another PFI for servicing.

57. **Social risks.** The project may potentially contribute to an increase in land competition and conflicts among farmers as livestock farming grows and proves increasingly profitable. A perception of insecurity among farmers, as well as lack of information about access to finance opportunities, may contribute to grievances. The project will address these potential negative effects through broad information sharing campaign to inform beneficiaries and relevant stakeholders about activities and opportunities available to them under the project. The project will also offer opportunities to farmers to

¹³ ILO 2016. Third-party monitoring of measures against child labor and forced labor during the 2016 cotton harvest in Uzbekistan.



access long-term credit lines to invest in their farm production. These credit lines may be particularly attractive for smaller livestock farmers and agribusinesses that may not have means to secure necessary finances otherwise. The project will also continue the policy dialogue with the Government to support development of the livestock sector throughout all the stages of the value chain.

G. Monitoring and Evaluation

58. M&E activities would be the overall responsibility of the RRA and will be facilitated by the RRA coordinators of each component in the RRA central office. In addition, environment and pest management issues related to the project would be monitored and evaluated by a full-time environment specialist located in the RRA central office. The findings and results collated by the relevant coordinators would be submitted to a dedicated M&E specialist located in the central RRA office. The M&E specialist would be responsible for reporting the findings of all project activities. These findings would be described in quarterly and annual progress reports that would be made available to the GoU (including its Ministries of Economy and Finance) and the World Bank. The fourth quarter report for each year would constitute the annual report.

59. The quarterly reports would cover the progress and implementation status of all project components progress on capacity building and training, activities of the project consultants, progress and results of special studies, other technical, environmental and social, procurement and FM issues. The annual reports will cover: (a) the progress of each component, implementation of key features of the ESMF, key performance indicators, results framework, operation of project facilities, and financial statements; and (b) the annual PIP for the following fiscal year required for implementation with breakdown by components/activities, an updated disbursement profile, planned actions for mitigating environmental and social negative effects during implementation, and target indicators for the coming year. As part of the monitoring effort, the RRA central office will monitor the performance of the PFIs, visit all subfinancing sites to ensure that the money has been used for its intended purpose.

H. Role of Partners

60. The EU will provide a parallel Grant of €15 million to support the TA of the project, namely Component 1 and Subcomponent 2.2. The EU Delegation in Tashkent has been participating in the project design and appraisal. The EU has a comprehensive portfolio of projects in support to the diversification of the agricultural sector and adaptation and rationalization of irrigation to diversified agriculture. The €9.3 million "Sustainable Agriculture Development in Rural Areas Project" supports agricultural sector economic development of selected value chains in six regions of Uzbekistan. Starting from a local development approach built on the dynamics from private operators and competitive advantage of each region, the project will support innovative pilots with TA from a consortium of EU institutions and selected investment to unlock potential and generate value at local level. Livestock value chains have been already identified (dairy) or will certainly be supported in a second round of pilot projects (small ruminants, poultry). These pilots could serve as example for later upscaling under LSDP. EU portfolio includes a €20 million "Sustainable Management of Water Resources in Rural Areas" which among other activities supports the adaptation of the irrigation network to diversification and new challenges of the sector, including by supporting pilots in six regions. Some pilots are specifically covering adaptations related to the development of livestock activities and fodder production. In addition, EU is currently preparing grant funding to the Bank-funded HDP and the Ferghana Valley Water Resources Management Project, Phase II. Both projects include a blending of investment and TA



activities covering VCD. Finally, the Skills Development for Employability in Rural Areas Project, a €15 million initiative under preparation will contribute to support innovative approaches, including in livestock value chains by training farmers and professionals on new jobs and technologies needed for transformation of the sector.

61. **IFC.** IFC is actively engaged in the dairy sector in Central Asia, especially in the Kyrgyz Republic, where its experience confirms that accessing an IDA-funded credit line is critical for smallholder farmers to improve dairy productivity and quality, and gain market access through dairy aggregators and processors. Obtaining a legal status is, however, an important pre-requisite for small farmers to engage in formal contracting with commercial banks and agro-processors. As such, the project will closely coordinate with the IFC CAAP which aims to improve access to finance for farmers and other value chain participants by: (a) enhancing the capacity of PFIs in properly assessing agri-investments by training them on fundamentals of agricultural production and agri-financing; (b) developing adapted innovative agri-financing and agri-risk management products; and (c) improving the bankability of small farmers, business farms and agro-processors, through targeted training, supply chain development, and connection to markets and financial institutions. This initiative is financed by the Government of Austria and the Government of Japan and implemented by IFC. CAAP has been working with three financial institutions in Uzbekistan since 2015, resulting in over US\$110 million in targeted agricultural loans and leases being channels to over 14,000 farmers and agricultural SMEs. To stimulate market-oriented VCD, CAAP is planning to engage with two large dairy processors to strengthen their capacities in establishing viable and highly professional contractual arrangements, to disseminate best practices for quality improvement in compliance with market requirements (including feeding, fodder production and conservation, reproduction and artificial insemination, and so on), and to design innovative financing solutions jointly with partner banks. The value chain approach and financing instruments being developed under CAAP could be replicated to other processors and value chains under LSDP.

62. The IFAD is already engaged in the livestock sector in Uzbekistan with a US\$24 million Dairy Value Chains Development Program targeting the Jizzakh and Kashkadarya Regions. This program aims at improving the livelihood of rural people by supporting increase in productivity, competitiveness and market access of domestic dairy products. It will also stimulate cooperation among farmers and agro-processors and is proposing differentiated support to smallholder farmers to facilitate their inclusion in VCD. The IFAD program is also implemented by the RRA which will ensure close coordination and experience sharing between the two interventions, especially in terms of value chain organization and smallholder inclusiveness. The project will notably draw from IFAD experience and, if successful, will contribute to replicate and scale-up its experience in other regions and subsectors.



ANNEX 3: IMPLEMENTATION SUPPORT PLAN

COUNTRY: Uzbekistan Livestock Sector Development Project

A. Strategy and Approach for Implementation Support

1. The strategy for supporting project implementation will focus on successfully mitigating the risks identified at various levels and supporting the risk management proposed in the SORT. The approach entails close monitoring of the project's technical design and implementation, as well as governance, fiduciary, and safeguard issues, and multi-Global Practice and cross-partner collaboration. It will consist of: (a) implementation support missions carried out jointly with EU, FAO, IFC and other partners where needs arise, and (b) TA in areas of weaknesses and where new approaches/procedures have been introduced.

B. Implementation Support Plan and Resource Requirements

2. **Technical support.** The objective of the technical support would be to help the project team to internalize good practices and to resolve implementation bottlenecks as they are identified during implementation support missions, as well as ensure proper FM /procurement and compliance with social and environmental safeguards. Support from technical partners, such as FAO, OIE, international livestock research institution (ILRI), will be sought when needed. Semi-annual implementation support missions will review the implementation progress, provide recommendations and guidance, review semi-annual/annual reports and various studies, and agree on the action plan/next steps.

3. **Focus of support.** The first two years of implementation will see more technical support. Specific targeted advice would be needed from the Bank team to assist the RRA and PFIs as they develop the credit administration system. In addition, the Bank team would need to provide close attention to coordination of activities under credit line and grant funding mechanisms. Thereafter, the focus will change to more routine monitoring of progress, trouble-shooting, and assessments based on the Results Framework. The supervision missions will be complemented by regular short visits by individual specialists to follow up on specific thematic issues as needed.

4. **Financial support.** As part of its project implementation supervision mission, the World Bank's FMS would conduct risk-based FM supervision within six months of project effectiveness, and then at appropriate intervals. During project implementation, the Bank would supervise the project's FM arrangements in the following ways: (a) review the project's semi-annual IFR and annual audited financial statements and auditor's management letter and remedial actions recommended in the auditor's Management Letters; and (b) during the Bank's on-site supervision missions, review the following key areas: (i) project accounting and internal control systems; (ii) budgeting and financial planning arrangements; (iii) disbursement management and financial flows, including counterpart funds, as applicable; and (iv) any incidences of corrupt practices involving project resources. As required, a Bank-accredited FMS would assist in the implementation supervision process. During the implementation supervision missions, in order to mitigate risks, the FMS would compare the contracts unit costs to similar costs using the Internet and local market. The FMS would consider joint fiduciary missions with procurement colleagues.



5. **Procurement support.** With respect to procurement, the Bank will undertake supervision through a combination of prior and ex-post reviews. A dedicated procurement specialist will work with clients (and PFIs, where relevant) on a regular basis in the first year to ensure understanding of procurement arrangements under the Program and of the Bank's procurement guidelines and procedures. Implementation supervision missions will be geared toward: (a) reviewing procurement documents; (b) providing detailed guidance on the Bank's Procurement Guidelines; and (c) monitoring procurement progress against the detailed PP. In addition to the prior review supervision to be carried out from the Bank office, the semi-annual supervision missions will include field visits, of which at least one mission will involve ex-post review of procurement activities.

6. **Safeguards.** The World Bank's Social and Environmental Specialists will join implementation supervision missions at least once a year throughout the project implementation period. More frequent missions may be organized, as needed.

7. **Main focus of implementation support.** Table 3.1 summarizes the main focus of implementation support during the project's implementation period.

Table 3.1. Main Implementation Support Activities

Time	Focus	Skills Needed	Resource Estimate	Partner Role
First twelve months	<ul style="list-style-type: none"> - Project start up - Support to implementation activities (livestock sector review, capacity building, strengthening implementation capacity including M&E) - FM: functioning accounting systems, training, ensuring fund flow arrangements for credit line - Guidance on applying safeguard instruments - Establishing M&E system: development of impact evaluation methodology and oversight of baseline survey - Procurement: contracting facilitation support, training 	<ul style="list-style-type: none"> - Project management - FM and procurement - General agriculture, livestock, agribusiness value chain, animal health - Social development and participatory processes - Environmental safeguards - Communications - M&E Capacity building - Grant/credit line implementation 	US\$130,000	Close coordination and joint supervision missions
12-48 months	<ul style="list-style-type: none"> - Project Implementation - Continuous utilization of the Revolving Fund - M&E - FM - Procurement - Safeguards compliance - Mid-Term Review 	<ul style="list-style-type: none"> - Project management - FM and procurement - General agriculture, livestock, agribusiness value chain, animal health - Social development and participatory processes - Environmental safeguards 	US\$240,000	Close coordination and joint supervision missions



Time	Focus	Skills Needed	Resource Estimate	Partner Role
		<ul style="list-style-type: none"> - Communications - M&E Capacity building - Grant/credit line implementation 		
48 months until completion	<ul style="list-style-type: none"> - Project Implementation - FM - Procurement - Safeguards compliance - M&E of project results and impact - Completion of project activities, data collection and preparation of the implementation completion report 	<ul style="list-style-type: none"> - Project management - FM and procurement - Livestock, agribusiness value chain, animal health - Social development and participatory processes - Environmental safeguards - Communications - M&E 	US\$120,000	Close coordination and joint supervision missions

Table 3.2. Skill Mix Required for the Proposed Project (per year)

Skills Mix Required			
Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Task Team Leader	10		CO based
Agriculture Economist, co-Task Team Leader	2		DC based
Rural Finance Specialist	4	1	DC based
Agricultural Specialist	6		CO based
Animal Health Specialist	2	1	
Value Chain Specialist	4	1	
Procurement Specialist	4		CO based
FMS	4		CO based
Environmental Safeguard Specialist	4	2	
Social Safeguard Specialist	4	2	
M&E Specialist	2	2	
Communication Specialist	1		CO based

C. Role of Development Partners

8. The project has been designed to support critical activities that were identified in the targeted value chains and areas but are not supported by other partners. This flexible and pragmatic design will enable the project to build on initiatives supported by other partners (which focus on a complementary



set of activities). In turn, this is expected to foster synergies and create a framework for more integrated livestock development, in line with the project's objectives and thematic emphasis. The RRA is implementing IFAD's Dairy Value Chains Development Program and will ensure that collaboration and information sharing will occur systematically during implementation of the proposed project. The following table provides some additional detail on the development partners cooperating with the LSDP and the role they are expected to play.

Table 3.3. Role of Development Partners

Name	Institution/Country	Role
Development partners involved in agriculture and livestock projects	EU, IFAD	Ensure synergies and complementarities Contribute to project supervision
Representatives of ILRIs	OIE, CGIAR research institutes	Provide support for technical advisory and capacity building activities
FAO Investment center	FAO	Contribute to project supervision Ensure provision of skills mix to support quality of project implementation
Coordinators of Bank projects (HDP, Sustainable Agriculture and Climate Change Mitigation Project, IFC's CAAP)	World Bank Group	Ensure synergies and complementarities Contribute to project supervision



ANNEX 4: Economic and Financial Analysis

COUNTRY: Uzbekistan Livestock Sector Development Project

1. The project will contribute to poverty reduction by increasing small producers' incomes from livestock and the value of their livestock assets that are an important social safety net for them. The project will contribute to shared prosperity and off-farm job creation by improving the competitiveness of livestock related processing and agribusinesses. Project benefits will result from (a) high producer incomes as a result of improved access to finance and markets and improved veterinary services and animal feeding; and (b) high processor incomes as a result of improved quality and consistency of supplies from farmers through productive partnerships, better access to finance and markets. Other non-quantified benefits include reduced human health costs as a result of improved food safety and zoonotic disease control, and reduced GHG emissions.

Financial Analysis

2. Based on anticipated project interventions and activities, eight illustrative models were prepared to demonstrate the financial viability of the project investments and to establish the basis for the cost-benefit analysis of the potential investments: four *dehkan* farm models, two private farm models, and two processing enterprise models. All models showed the prospective benefits and rate of return derived from the access to required financing (loans), training, demonstrations and advisory services. These models were also used as building blocks for the economic analysis of the project.

3. The parameters for the models were based on the data collected during the project preparation missions. Additional data and information were provided by the RRA and the research institutes. Conservative assumptions were made both for inputs and outputs, along with possible risks.

4. **Prices.** Prices for commodities/inputs reflect annual average and those actually paid/received by the farmer/entrepreneur.

5. **Interest rate.** In line with the terms of the donor-supported credit lines provided through the commercial banks, the long-term loans to end borrowers would be at 10–12 percent interest rate, while the analysis applies 18 percent interest rate for agricultural short-term loans (1.5 percent per month) that is currently prevailing in Uzbekistan.

6. **Lending terms.** The length of seasonal or short-term loans is up to one year. Long-term loans are expected to be repaid in equal instalments over an up to a five-year period, depending on the investment. The long-term loans were assumed to have a one-year grace period. Interest on the entire amount outstanding would be paid during the grace period.

7. **Farm/enterprise characteristics.** The models show only incremental revenues and costs generated by a new investment. In each case, the result of the investment translates into additional demand for produce from primary producers and new permanent jobs.

8. **Internal rate of return.** The internal rate of return (IRR) of 12 percent was used in the analysis to assess the viability and robustness of investments. The selection criterion for the IRR is to accept all



projects for which the IRR is above the opportunity cost of capital, that is, 12 percent. Using the IRR as the measure, the models' sensitivity to the changes in parameters can be assessed by varying the cost of investments, production costs and revenues.

Farm and Enterprise Models

9. Several farm models were prepared for the financial and economic analysis of the project activities and interventions in the following livestock subsectors:

10. **Smallholders' dairy and beef sector.** The *dehkan* farms own 10.9 million heads or 94.1 percent of cattle herd of Uzbekistan. They produce 94.4 percent of meat and 95.7 percent of milk of the country. According to estimates, about 80 percent of *dehkan* farms own from one to five heads of cows and among them about 20 percent of *dehkan* farms have only one head of cow. The analysis of the production and consumption of milk shows that a *dehkan* farm which owns only one milking cow consumes all milk it produces (including calf consumption) and is in fact a subsistence farm. This is due to low milk productivity conditioned by poor breeding and feeding practices. It is also combined with a relatively low conception rate of cows resulting in a significant share of cows remaining dry every year. Basically, on average only 70 percent of cows of *dehkan* farms are milking cows.

11. According to estimation, two-thirds of *dehkan* farms producing milk do not sell any milk as they consume all milk they produce. These farms are mainly those that own only one cow. This is mostly due to a low productivity of milking cows of such *dehkan* farms. A profitability analysis of a 1-cow *dehkan* farm shows that even if productivity was increased by 25 percent (for example, due to improved feeding or artificial insemination) the marketable surplus of milk would still not reach a considerable quantity. The analysis also shows that *dehkan* farms with two to three cows produce more milk available for sale but its quantity is relatively small and would not be commercially interesting for milk collectors and processors. Apparently, only those smallholder farms which will be able to increase milk productivity significantly will become a part of the milk supply chain. It is recommended that the project would support milk production of *dehkan* farms owning at least two cows with the main focus given to the *dehkan* farms with 5–10 cows.

12. The *dehkan* farms with cows produce not only milk but also beef as well as sell live cattle. On average, a two-cow *dehkan* farm makes 25 percent of its revenue from selling milk and 75 percent from selling beef and live cattle. In general, the share of milk in *dehkan* farms' revenue increases with an increase in the number of cows. For example, the share of milk in the revenue of a five-cow *dehkan* farm reaches 50–60 percent.

13. The financial analysis of milk and beef production of a one-cow *dehkan* farm shows that the gross margin is negative. A model simulation shows that even if the project increases milk productivity by 25 percent (due to improved feeding or improved breeding through artificial insemination), the cash component of the gross margin will be still negative and the revenue/costs ratio is below 1 (0.7). However, if the non-cash value of self-consumed milk is taken into account, a cost-benefit ratio is positive. This explains why such farming system is economically viable and widespread in Uzbekistan. Nevertheless, the disadvantage of subsistence farming is in poor integration into higher value chains.



Table 4.1. Farm Models - Milk Yield and Marketable Output

	DF 1 Cow	DF 2 Cows	DF 3 Cows	DF 5 Cows	DF 10 Cows
Number of cows per farm	1	2	3	5	10
Average yield per milking cow/day, lt	6.0	6.5	6.5	7.0	7.0
Average milk output of farm per day, lt	2.9	6.4	9.6	19.7	39.4
Including marketable output, lt	no	1.8	4.7	13.8	31.4

14. A gross margin of milk and beef production of a *dehkan* farm with two or three cows is positive: from UZS 1.0 million (US\$280) to UZS 1.3 million (US\$360); and the revenue/costs ratio is about 1.2–1.3. This is due to the fact that such farm produces more milk than it consumes and sells the surplus of milk, which ranges from 1.8 liters to 4.7 liters of milk per day on average during the lactation period. Such small quantity of milk would not be commercially interesting for milk collectors and processors due to high collection and transportation costs.

15. From milk collection point of view, the commercial attractiveness of *dehkan* farms increases with an increase in the number of cows they own. A gross margin of milk and beef production of a *dehkan* farm with 5 cows is UZS 2.5 million (US\$700) and the revenue/costs ratio is about 1.25. On average, such farm can supply for sale about 13.8 liters of milk per day during the lactation period and could increase the supply up to 25 liters per day if feeding and breeding practices are improved.

16. A gross margin of a *dehkan* farm with 10 cows is about UZS 7 million (US\$2,000) with the revenue/costs ratio of about 1.3. On average, such farm can supply for sale about 31.4 liters of milk per day during the lactation period and could increase the quantity of milk supplied up to 55 liters of milk per day if feeding and breeding practices are improved.

17. Five models were developed in the cost-benefit analysis of the dairy value chain and its elements: the *dehkan* and private farms, milk collection center and milk processing plant.

18. **A small *dehkan* dairy farm (household)** with two cows decided to expand its dairy herd to 5 cows by purchasing three additional cows. As a result of improved feeding and husbandry practices, veterinary services and breeding, the daily milk yield will increase by 20 percent (from 6.8 liters to 7.8 liters on average). It is assumed that a farmer will take a loan in the amount of US\$3,338 under the project's credit line on conditions of five years of repayment period at the interest rate of 12 percent and one year of grace period. The farmer is assumed to contribute 20 percent of the cost. The estimated annual gross income before financing is US\$1,550, IRR significantly exceeds the financial discount rate of 12 percent (55.5 percent) and NPV is positive (US\$4,925) over the 10-year projected period.

19. **A medium-sized *dehkan* dairy farm** with five cows will expand its dairy herd up to 10 cows by purchasing 5 additional cows. As a result of improved feeding and husbandry practices, veterinary services and breeding, the daily milk yield will increase by 20 percent (from 7 liters to 8.4 liters on average). It is assumed that a farmer will take a loan in the amount of US\$5,563 under the project's credit line on conditions of five years of repayment period at an interest rate of 12 percent and one year of grace period. The farmer is assumed to contribute 20 percent of the cost. The estimated annual gross income before financing is US\$2,420, IRR significantly exceeds the financial discount rate of 12 percent (48.7 percent) and NPV is positive (US\$7,200) over the 10-year projected period.



20. **A small private dairy farm** with 30 cows will expand its dairy herd to 50 cows by purchasing 20 additional cows. As a result of improved feeding and husbandry practices, veterinary services and breeding, the daily milk yield will increase by 20 percent - from 15 liters to 18 liters on average. It is assumed that a farmer will take a loan in amount of US\$52,162 under project's credit line on conditions of five years of repayment period at an interest rate of 12 percent; with one year of grace period. The farmer is assumed to contribute 20 percent of the cost. The estimated annual gross income before financing is US\$28,325, IRR significantly exceeds the financial discount rate of 12 percent (33.7 percent) and NPV is positive (US\$52,127) over the 10-year projected period.

21. **Milk collection center (MCC)** will be established by a group of *dehkan* and private farms and will be supported by a milk processing plant, which will provide the MCC with the milk cooling tank, generator and other equipment. The plant will also cover the transportation cost from the MCC to the plant. The MCC will provide better connection of *dehkan* and private farms to the dairy value chain and ensure better access to the market. The MCC is expected to operate 300 days per year with the design capacity of 2,000 liters of milk per day. It is assumed that the MCC will collect fresh whole milk from *dehkan* and private farms at UZS 2,000 per liter and will supply it to the plant with an eight percent collection charge, which is estimated to cover the operating cost of the MCC. The model shows that there will be no need to take a loan as the equipment will be provided by the plant. The model demonstrated that the milk collection business is very sensitive to the changes in the milk collection price. It also proves that the milk collection business is not financially viable unless the initial investment (in equipment) is made by the milk processing plant. An amount of investment that will be made by the plant is estimated at US\$23,000 in total. The estimated annual gross income is US\$4,927, IRR is 19 percent (at 12 percent of discount rate) and NPV is positive (US\$5,062) over the 10-year projected period.

22. **A milk processing plant**, with an annual processing capacity of 500 tons will expand it to 1,200 tons (by purchasing the additional equipment) and introducing a new dairy product (yellow cheese). It will benefit from increased supply of milk produced by smallholder farms, which will be integrated to the dairy value chain and get better access to the market. It is assumed that the plant will take a loan in amount of US\$192,000 under the project's credit line on conditions of 5 years of repayment period at the interest rate of 12 percent and one year of grace period. The beneficiary is assumed to contribute 20 percent of the cost. The plant will be also provided with a short-term loan (from the PFIs' own resources) to cover the shortage in working capital. The estimated annual gross income before financing is US\$372,500, IRR is 16.8 percent and NPV is positive (US\$55,366) over the 10-year projected period.

23. The main results of the financial analysis of the farm and enterprise models in the dairy sector include: (a) a significant increase in gross and net returns from each model compared with and without-project situation and (b) sufficient benefit/cost ratios illustrating the worthiness of the investments. The NPV ranges from US\$4,572 to US\$83,997, while the IRRs vary from 17 to 52 percent which exceed the discount rate. The sensitivity analysis also shows that all models, except for milk collection, would remain attractive even if costs increase or benefits decrease. The analysis shows that all models are financially viable and have good investment return.

24. A summary of the farm/enterprise models is presented in table 4.2.



Table 4.2. Farm/Enterprise Models - Estimated Costs and Annual Net Benefit

Models	Estimated Investment Costs (US\$)			Annual Net Benefits at Full Development (US\$)			Incr. Annual Net Benefits per US\$1 of Investment (US\$)	IRR (%)	NPV (US\$)
	Loan	Beneficiary Contribution	Total	Without Project	With Project - Full Development	Incremental			
Dehkan Farmer (2 to 5 cows)	3,338	834	4,172	436	1,985	1,550	0.37	55	4,925
Dehkan Farmer (5 to 10 cows)	5,563	1,391	6,954	1,152	3,571	2,419	0.35	49	7,199
Private Farmer (30 to 50 cows)	46,944	11,736	58,680	7,393	42,174	34,782	0.59	34	83,997
Milk Collection	0	23,000	23,000	0	4,927	4,927	0.21	19	5,062
Milk Processing	192,000	48,000	240,000	299,536	372,485	72,949	0.30	17	55,366

25. **Small ruminants.** A profitability analysis of small ruminants rearing confirms that it is a good economic activity for *dehkan* farms, especially for those living in dry steppe and semi-desert areas which represent two-thirds of the country's territory inhabited with about four million people. In most cases, smallholders who live in other areas of the country and who rely mainly on crops, keep small ruminants as a subsidiary (secondary/additional) source of income and meat and a safeguard against crop failure and low crop prices. A typical size of the flock in *dehkan* farms is 10 sheep. A gross margin of such flock is quite low because the sheep are consumed by a *dehkan* family or relatives. However, an economic benefit/cost ratio is quite high (about 1.33), which explains why such business model of sheep production is viable and widespread in Uzbekistan. The financial analysis of the sheep flock with a greater number of sheep (100 heads, 500 heads) shows that the gross margin increases with an increase of the number of sheep. It should be noted that the revenue from coarse wool production is very small due to the low price of wool and practically no access to the market.

26. The access to natural pastures is a key element for small ruminants farming as it provides a low-cost feed all year round. Therefore, pasture management is a very important activity and should be included in the project activities.

27. A profitability analysis of a karakul production farm shows that only five percent of its revenue comes from the sale of karakul pelts, while the rest of the revenue comes from mutton/lamb production. Basically, karakul pelt is a side product of sheep meat production system in the areas of the country where the karakul sheep are dominant. It is highly plausible that karakul sheep are still dominant in some areas of the country (mainly in dry-steppe and semi-desert areas) only because they are more resistant to harsh climatic conditions and poor feeding base, rather than because they produce karakul pelt.



28. Two models of sheep production were developed to estimate the incremental benefits of the project's activities on improving the feed base for the small ruminant sector, including through pasture management and improvement:

29. **Dehkan farm (household)** with a small flock of 10 sheep will benefit from improved feeding and better access to pastures as a result of the project's activities. In addition, the *dehkan* farm will receive improved veterinary and breeding services and better access to market. The model shows incremental annual benefits of US\$12.1 per flock or US\$1.1 per SSU.

30. **Private farm** with a large flock of 300 sheep will benefit from the project's activities on improvement of the feed base for the small ruminant sector, including through pasture management and improvement. Thanks to the project, the farm will also receive the improved veterinary and breeding services and get better access to market. It is estimated that the grazing period will increase from the current 180 days to 210 days, and the period of the supplemented feeding will decrease. The farm will also receive improved veterinary and breeding services. The model shows incremental annual benefits of US\$2,447 per flock or US\$2.3 per SSU.

31. There is less potential in the small ruminant sector as compared to the cattle sector. However, this sector is important in dry steppe and semi-desert areas of the country, as small ruminants are often the only source of agricultural revenues for small farmers and households. Moreover, this sector makes considerable contribution to the consumption of meat by the country's population since sheep and goat meat account for around 15 percent of total meat consumption. As the analysis shows, support provided to this sector through improvement of feed base, veterinary and breeding services will allow rural population to receive incremental benefits and increase their revenues.

32. **Poultry.** A profitability analysis of family poultry farming shows that it could be considered as a good commercial activity for smallholders, but sensitivity to the changes in productivity questions sustainability of the family poultry farming in the long run. However, family poultry farming could provide a vital livelihood support within mixed *dehkan* farming systems and act as a stepping stone to alternate livelihood activities for those poor *dehkans* who aim to alter their production systems. In further economic and financial analysis, a particular attention should be given to the assessment of the family poultry farming as compared to imported frozen poultry products and the integrated large-scale poultry operations within the country.

33. One of the perspective business models in the poultry sector of Uzbekistan could be a semi-intensive poultry or egg production system in which smallholder farmers are engaged only in broiler growing or egg production, while the breeding, incubating, supply of chicks and provision of feed are handled by large industrial poultry farms. Such production systems are developed in the USA and in some European countries, and they are financially viable and sustainable, benefiting from cost and risk sharing between several large poultry corporations working closely with thousands of small farms. Uzbekistan has favorable climate conditions suitable for development of such business model in the poultry sector which could be a comparative advantage over potential competitors, who are mainly located in Russia, Ukraine and Kazakhstan with much colder climatic conditions. It is recommended to include the proposed semi-intensive business model to the feasibility study for technical testing and confirmation.

34. An indicative model of a small *dehkan* farm (household) engaged in poultry production was



developed. The farm has 25 local traditional chickens and decided to increase its production by expanding the number of chickens up to 100 heads through purchasing the improved local one-day chicks. The business of the farm is to feed the chicks and grow them up to the 6-month growers and sell them on the local market as well as produce eggs. The farm will benefit from the improved feeding, veterinary and breeding services supported by the project in the poultry sector. The cost-benefit analysis shows that the farm will have the incremental benefits in the amount of US\$469 per year.

35. Family farm poultry production can be a promising business in the remote areas of the country where supplies of frozen poultry products produced by the integrated large-scale poultry farms are limited. This type of business can help rural population, especially those who have households and small *dehkan* farms, to receive additional income and improve their nutrition.

Economic Analysis

36. LSDP does not lend itself to the traditional economic analysis of development projects, that is, to aggregate benefits from specific households taking up pre-defined packages of interventions as compared to project costs. In the presented case, the representative value chain model could be used to estimate potential returns to US\$ 1 of economic investments. The potential range of opportunities for economic advancement in the country greatly varies across the area, and it is anticipated that farmers and rural entrepreneurs would opt for diversity in order to accelerate economic advancement.

37. Prices for majority of local goods were converted into their approximate economic values using a Standard Conversion Factor (SCF) of 0.9 as estimated by the World Bank, and could be justified by the strong government self-sufficiency policy. Imported inputs and finished dairy products were converted into economic values by deducting the VAT of 20 percent. The derivation and a summary of economic prices are presented in the excel files of the analysis.

38. **Opportunity cost of labor.** A daily wage rate of UZS 21,600 has been assumed for family labor in Economic Analysis as a prevailing laborer rate during the off-season.

39. **Benefit stream.** The analysis attempts to identify quantifiable benefits that relate directly to the activities under the project components or that can be attributed to the project's implementation.

40. The illustrative models described above have been used for the calculation of the overall benefit stream, on the basis of economic prices. When calculating the overall benefits from the model, the following was taken into account:

- An average indicator for the incremental annual net benefits per US\$ 1 of investments equals to US\$0.37 based on the illustrative models which are likely to be implemented under the project.
- The incremental net benefits were calculated by multiplying an average indicator by the amount of estimated investments in VCD (credit line).
- An 80 percent success rate was applied to the models, that is, it is assumed that only 80 percent of the investments would achieve the estimated returns.



- The benefits deriving from each model are calculated for the period of twenty years.
- Incremental benefits from the small ruminants sector were estimated based on the assumption that as a result of the project the productivity and an access to at least 500,000 ha of pastures will be improved.
- Incremental benefits from the poultry sector were estimated based on the assumption that as a result of the project support at least 3,000 households and *dehkan* farms will be engaged in improved poultry production.

41. **Cost stream.** The incremental costs in economic prices did not include the estimated price contingencies and taxes/duties. It is assumed that there are no recurrent or replacement costs after the project completion. O&M costs have been counted in the net incremental benefits of each model. The total economic cost of the project amounts to about US\$ 165 million.

Results of the Analysis

42. Given the above benefit and cost streams, the base case ERR is estimated at 22 percent. The base case NPV of the project's net benefit stream, discounted at nine percent, is US\$58.4 million.

43. **Sensitivity analysis.** The sensitivity analysis assessed the effect of variations in benefits and costs and for various lags in the realization of benefits. The results are presented in table 4.3. A decrease in total project benefits by 20 percent and an increase in total project costs by the same proportion would reduce the base ERR to about 13 to 15 percent.

44. A one-year delay in project benefits reduces the ERR to 16 percent. With a two-year delay in project benefits, the ERR falls to 12.7 percent.

Table 4.3. Sensitivity Analysis

Sensitivity Analysis (20-year period)	Base Case	Costs Increase			Increase of Benefits		Decrease of Benefits			Delay of Benefits	
		+10%	+20%	+50%	+10%	+20%	-10%	-20%	-30 %	1 year	2 years
IRR (%)	22.0	18.0	14.8	7.7	26.4	31.0	17.6	13.3	8.7	16.0	12.7
NPV (US\$, thousands)	58.4	44.9	31.4	-9.1	77.8	97.1	39.1	19.7	-1.2	42.3	27.5



ANNEX 5: OP 10.00/Financial Intermediary Financing Compliance Note

COUNTRY: Uzbekistan
Livestock Sector Development Project
Credit Line for Private Investments Subcomponent

1. General Project Overview

1.1. Project Summary

1. The proposed project takes a comprehensive approach to contribute to the development of livestock sector¹⁴ in Uzbekistan through the following components: **Component 1: Public Investment Framework and Public Services** will help address the core bottlenecks in the institutional and policy framework and the environment of public services. Activities will be structured around the following subcomponents: **Subcomponent 1.1: Strategy, Policy, and Public Investment Framework** will finance: the preparation of a long-term sector modernization strategy and a medium-term investment program; capacity strengthening of the MAWR staff; and surveys and targeted analytical work to properly monitor the effects of policy decisions and stimulate policy dialogue between the Government and value chain stakeholders. **Subcomponent 1.2: Strengthening Livestock Sector Public Services** will support veterinary services, fodder seed improvement and livestock research. **Component 2: Livestock Value Chain Modernization** will help improve the competitiveness and performance of livestock value chains by: **Subcomponent 2.1: Credit Line for Private Investments** which will finance a credit line to commercial banks for provision of working capital and investment finance to the livestock sector nationwide (including, among others, farming, processing, packing and marketing equipment and infrastructure, cooling facilities and equipment, upgrading of existing infrastructure and equipment required to comply with food safety or market-specific requirements); and training and advice on sector-specific loan product development for commercial banks, loan appraisal and monitoring in the livestock sector. **Subcomponent 2.2: Value Chain Development and Smallholder Market Inclusion** will support: the establishment of partnerships of value chain stakeholders organized around aggregators and clusters of small producers, private farms and agro-processors; transformation of the smallholder farming systems into a fully market-oriented farming entrepreneurship model and the inclusion of smallholder farmers, including women, into modern and market-oriented value chains through contract farming and marketing arrangements; development of stronger collaboration between research and private sector around innovation and competitiveness clusters. **Component 3: Project Coordination, Management, and Monitoring and Evaluation** will deal with project management.

2. The total financing of the project is US\$150 million, of which US\$142.3 million have been budgeted for the credit line and US\$500,000 for training and TA to Participating Financing Institutions (PFIs). In addition, an EU Grant of 15 million Euros (US\$16M equivalent), will be provided, to complement the TA activities under the project.

1.2. Objectives of the Project

3. The PDO is to improve livestock productivity and access to market in selected Regions.

¹⁴ For the purposes of this project, the term “livestock sector” has broad understanding and it includes cattle, small ruminants, poultry, bees-keeping, silk production, and other animal-related activities.



1.3. Flow of Funds

4. For the purposes of the credit line, the World Bank loan/credit funds will be channeled through the MoF as the Borrower's representative. The implementation of the project, including the credit line for Private Investments subcomponent, will be carried out by the RRA, which has prior extensive experience in implementing World Bank projects, including with credit lines (RESPs I and II (both had credit lines totaling about US\$50 million), as well as the Additional Financing to the RESP II – a credit line of US\$40 million; and HDP – credit line of US\$140 million). The MoF, representing the Borrower, the RRA and each qualified PFI will sign a Subsidiary Loan Agreement for the purposes of implementing the project's credit line. Similar to the other credit line, a Separate Operational Manual for the Livestock Sector Support Project (LSDP) credit line will determine the criteria, eligible activities, detailed withdrawal procedures, and responsibilities of all parties implementing the credit line. The PFIs will receive the credit line proceeds under the framework of the Subsidiary Loan Agreement and on-lend to eligible beneficiaries for implementation of eligible subprojects in accordance with the Operational Manual, and their banking considerations.

1.4. Additional Information

5. **Project beneficiaries.** The project primary beneficiaries will comprise of small households, farmer groups, private enterprises, agro-firms, and agro-processing enterprises, involved in the country's livestock subsectors. In the public sector, the project will support institutional strengthening of the livestock, poultry and fishery state research institutes and the State Veterinary Services. Secondary beneficiaries anticipated to benefit include: PFIs through improved skills and acquisition of a more diverse menu of suitably adapted financial products; and the national network of private livestock holders through training and dissemination of modern technologies and husbandry practices, access to better animal health and advisory services.

6. **The beneficiaries of the credit line** will include producers, processors and traders of animal products (livestock, sheep, rabbits, bees, and so on), developing upstream and downstream market links in competitive value chains. Three main types of beneficiaries are envisaged: (a) participants of the selected value chains (para 7 below) supported by the project who will benefit from the TA under the project; (b) other enterprises (processors and traders) engaged in the country's livestock sectors and striving to develop competitive value chains (upstream and downstream contracts/agreements will be required); and (c) private farmers, who will be able to borrow for on-farm investments without the requirement of becoming a value chain participant. The average sub-loan size is assumed to be around US\$350,000 equivalent, which would allow financing of some 400 subprojects during the project period.

7. The following table summarizes the project-supported value chains in selected regions:

Table 5.1 Provisional Selection of Value Chains and regions

Production Value chain	Region	Justification	Specific issues
Dairy/Beef	Andijan, Namangan, Kashkadarya and Samarkand	Increasing market demand Smallholders represent 96 percent of dairy production and 97 percent of beef production Private investments in processing	Market aggregation, including smallholders Productivity, improved feeding, fodder production Quality, standard and traceability



Production Value chain	Region	Justification	Specific issues
Poultry	Khorezm, Syrdarya, Andijan, Namangan and Ferghana	Government priority to support rural households Family and secondary city demand Nutritive potential and income generation in poorer rural areas, especially for women	Breeding, feeding, aggregation and marketing
Small ruminants	Navoi, Karakalpakstan Bukhara, Kashkadarya and Samarkand	Market potential Use of natural pastures - low cost source of feeding Role of small ruminant for communities living in dry steppe and semi-desert areas (two-thirds of the country's territory) Environment and pasture rehabilitation	Pasture management, including pasture crops Animal productivity Traceability and labelling
Bee keeping	Jizzakh, Kahskadarya, Sukhandarya, Andijan, Namangan and Ferghana	Rural income generating activities in mountain and rainfed areas Unsaturated domestic market and export potential	Practices and technologies Marketing, labelling, quality control and certification
Silk	Ferghana Karakalpakstan	Income generating activities for rural women Export potential	Practices and technologies Marketing

8. **Approach.** The livestock sector is dominated by household and small-scale commercial producers (*dehkan* farms). While they own less than 15 percent of arable land, their share of livestock production has gradually increased to more than 90 percent of output as they own 80 percent of cattle and 60 percent of poultry. Access to finance for these smallholders has been very challenging. As part of the project, these smallholders are expected to be integrated into viable value chains, improving their bankability and allowing the banking sector to connect to financing entire value chains. Therefore, value chains financed under the project will have to engage smallholder producers. The Credit Line for Private Investments subcomponent will provide access to much needed finance for investments in the livestock sector, at the same time bringing the relevant knowledge required for effective support of the livestock sector to the banking sector. The project will attempt to alleviate the lack of long-term financing for the livestock sector by providing funding with a maturity of up to 20 years to the banking sector to be revolved in the PFIs.¹⁵ It will also provide for introduction of financial products to support development of value chains in the sector.

9. **Inclusiveness and gender dimension.** Livestock production is a major livelihood support system and a social safety net for 49 percent of the population or 15.3 million people who live in rural areas. Smallholder farmers use only 13.5 percent of the total cultivated land and consume a large part of their output at home, but they represent the largest share of the overall livestock production (96 percent dairy, 95 percent beef/mutton, 85 percent wool, and 55 percent eggs). The project will therefore aim at facilitating their inclusion into modern value chains and more formal production, processing, and marketing channels. Modernizing existing agricultural value chains, diversifying production and stimulating value-addition will generate growth and provide more job opportunities in rural areas where most of the bottom 40 percent of the income distribution live. Integrating smallholder farms into

¹⁵ The long-term capital in the banking sector is formed by banks' own capital and donor projects. The World Bank-financed projects tend to support specific sub-sectors of economy at the GoU's request, such as the Horticulture Development Project.



modern supply chains is also important for the inclusion of women as they usually take care of livestock in households. Women are increasingly involved in the agricultural sector and demonstrate growing interest in livestock production. Women are expected to benefit from increased employment and entrepreneurial opportunities in the livestock sector, capacity building activities and the improved quality of produce generated by the sector. The project will assess participation of women in the sector overall and in leading farm enterprises more specifically through a gender disaggregated data gathering.

10. **Lending by the PFIs will be demand-based.** The project will work closely with potential beneficiaries to support investment subprojects that are critical to enhance the competitiveness of the sector, to stimulate value chain organization and collaboration among stakeholders, to facilitate the connection of smallholder farmers to markets and their inclusion into modern value chains. The credit line will therefore finance subprojects presented by individual producer enterprises, as well as investments prepared by clusters of aggregators, private farms and smallholders. The project will organize an information campaign that will publicize credit lines available to farmers, loan application criteria and process. The sub-borrowers will have to meet a set of agreed criteria, which will be described in the details in the LSDP Credit Line Investment Guidelines.

11. The Credit Line for Private Investments subcomponent will finance:

- (a) a credit line to commercial banks for provision of working capital and investment finance to the livestock sector producers, processors and traders nationwide, including, among others, farming, processing, packing and marketing equipment and infrastructure, cooling facilities and equipment, upgrading of existing infrastructure and equipment required to comply with food safety or market-specific requirements. The project will give priority to investments that promote climate resilience and emission reduction, such as (i) climate-smart technologies and practices including sustainable land/landscape management, waste management systems to minimize GHG emissions, pollution and dissemination of pathogens, and (ii) renewable energy supply (bio and solar energy) systems;
- (b) training and advice on sector-specific loan product development for the PFIs (which will be commercial banks), loan appraisal and monitoring in the livestock sector. The PFIs will receive training on financing investments in livestock sector, as well as proving value chain financing instruments (such as contract farming, transaction finance), tailoring the financing instruments based on the needs of the participants of the value chains, and on mitigation of the related risks. The training will be about 5 days long, and will be targeting loan officers and branch managers of PFIs.

12. **Demand.** On the demand side, steady economic growth over the last 12 years (on average 8 percent during 2008–2015 before falling to a more moderate 6 percent), supplemented by strong population increase (at an annual rate of 2.7 percent) has resulted in an expanding domestic market for products derived from animals, in particular, safe meat and milk. The development of livestock sector in Uzbekistan is of great economic and social significance as it is an important source of income contributing from 10 to 30 percent to cash income and vital food products for rural households. The country remains, however, a net importer of meat and milk. The Government sees the livestock sector as a key area to improve nutrition, incomes and livelihoods of rural population. One of the priorities is to meet the needs of the population in food products, including livestock products, and to increase supply of meat, milk, eggs, fish and other products to local market. However, it is also clear that a more



productive, profitable and effective way of linking small-scale producers to the markets is necessary. Therefore, the project is taking a value chain building approach in its core to ensure demand-based support for competitive value chains. At the same time, it is also clear that investment needs in the sector are significant to upgrade the breeds, on-farm investments, feed and fodder production, processing equipment, and so on.¹⁶

13. On the supply side, at the same time, availability of long-term funding in the financial sector remains a major constraint, thus preventing producers and processors from taking full advantage of the market opportunities described above. As described below, international financial institutions (IFI) credit lines remain the main source of long-term funding for PFIs, in particular for financing agricultural sector. The LSDP preparation mission discussed with the potential PFIs the likely demand for credit resources during the project period, and received the following information:

Table 5.2. Potential Demand for Funding for under the LSDP

Financial Institution	Tentative Demand, US\$ million equivalent
Xalq Bank ^a	As much as possible ^b
Microcreditbank	30
Qishloq Qurilish Bank ^a	15
Ipak Yoli Bank ^a	10
Aloqua Bank	10
Turonbank ^a	10
Asia Alliance Bank	10
Kapital Bank	1
Interim total	86
Hamkorbank ^a	NYI ^c
Infinbank	NYI
Ipoteka Bank ^a	NYI
Asaka Bank ^a	NYI
National Bank of Uzbekistan ^a	NYI
Uzpromstroibank ^a	NYI
Orient Finance Bank	NYI

Note: a. HDP PFIs.

b. This would be restricted by the overall exposure of Bank-financed credit lines to the PFI capital, which is set at 75 percent. The PFIs' capital as of end-2016 was is US\$172 million equivalent.

c. NYI – Not Yet Informed the team of the amount the PFI would like to reserve under the credit line.

2. Coordination between the Bank and IFC

14. Uzbekistan became a member of IFC in 1993. Since 1996, IFC invested US\$94 million to support 27 private sector projects in the financial, agribusiness and food sector. As of June 30, 2013, IFC's portfolio in Uzbekistan stood at US\$9.4 million with investments in the financial and general manufacturing sectors. IFC strategy in Uzbekistan is mainly focused on the financial sector and agribusiness. Through a combination of investment and advisory services, IFC works to improve the business environment, promote public-private partnerships, improve tax administration, and develop credit information infrastructure.

¹⁶ Another donor supporting livestock sector at this time is the IFAD, with a US\$25 million project (it does not include a credit line-type of instrument).



15. The project will closely coordinate with the IFC's CAAP which aims to improve access to finance for farmers and other value chain participants by: (a) enhancing the capacity of participating financing institutions in properly assessing agri-investments by training them on fundamentals of agricultural production and agri-financing; (b) developing adapted innovative agri-financing and agri-risk management products; and (c) improving the bankability of small farmers, business farms and agro-processors, through targeted training, supply chain development, and connection to markets and financial institutions. This initiative is financed by the Government of Austria and the Government of Japan and implemented by IFC. CAAP has been working with three financial institutions in Uzbekistan since 2015. To stimulate market-oriented VCD, CAAP is planning to engage with two large dairy processors to strengthen their capacities in establishing viable and highly professional contractual arrangements, to disseminate best practices for quality improvement in compliance with market requirements (including feeding, fodder production and conservation, reproduction and artificial insemination, and so on), and to design innovative financing solutions jointly with partner banks. The value chain approach and financing instruments being developed under CAAP could be replicated to other processors and value chains under LSDP.

16. The maximum loan size per beneficiary under LSDP will be up to US\$ 2 million. Subject to standard IFC's financing requirements and due-diligence procedures, IFC could consider investments above US\$2 million.

3. Policy Framework for FILS

3.1. Macroeconomic Environment

17. Uzbekistan has a fast-growing economy with an average real growth rate of GDP at around 8 percent between 2008 and 2015, before slowing down to 6 percent for 2016, which is also the projection for 2017. The slow-down is caused by lower global commodity process, Russia's economic slow-down, and spill-overs from China's rebalancing.¹⁷ Internal factors also contributed to the slow-down: private consumption remained weak, as income eroded due to persistently high inflation and a 19 percent (2015/2016) fall in remittances from Russia (as measured in U.S. dollar terms). By contrast, robust investment activity stimulated by some tax relief supported growth. The per capita income is US\$2,220 (current US\$, 2015), and the official poverty rate declined to 13.6 percent in 2015 due to rapid economic growth, large government investments in education, health and infrastructure development, increases in public sector salaries, and remittances. The country is an oil and gas exporter, and due to its isolation, has remained relatively shielded from global impacts (the high GDP growth rate during the most recent crisis periods confirms that). Services, transport and communication, as well as trade and agriculture have been fastest-growing sectors, mostly due to domestic consumption. The current account balance has been positive for the last several years, although the surplus has narrowed, estimated to 0.1 percent of GDP in 2016. Preliminary official data suggest that total exports increased slightly in the first half of 2016, while remittance inflows and imports continued to decline. Lower imports were due to lower private consumption of durables and non-food consumer items and the further import-substitution of fuels and chemicals, as well as import compression measures, such as foreign currency rationing. Based on IMF estimates, inflation has been on a downward trend for the past few years, and was 8.4 percent for 2016.

¹⁷ IMF.



18. The Central Bank of Uzbekistan has been continuing, for the last several years, the liquidity-mopping operations, to contain inflation by sterilizing the money in circulation. These measures have resulted in shortages of available cash for social payments and cash withdrawals from the banking sector (most of the disbursements take place by transfer to the supplier). The foreign exchange rate is closely regulated and managed by the government. Aiming at improving competitiveness of the export sector, the Uzbekistan soum has continued depreciating both against U.S. dollar and Euro.

3.2. Financial Sector Framework

19. Uzbekistan's financial sector is comprised of 27 commercial banks and 28 very small microcredit institutions. Overall, the banking sector has performed well over the last several years, even through the turmoil of global financial crises. State-owned banks dominate the system, with their asset share reaching about 80 percent of the total bank assets (top five banks dominate the sector with 62.7 percent of the total assets). As of January 1, 2016, the total capital of the banking system of Uzbekistan exceeded UZS 7.8 trillion (approx. US\$2.45 billion equivalent). The total assets of Uzbek banks increased by 25.1 percent during 2015, amounting to UZS 65.2 trillion (US\$20.4 billion equivalent), including loans to the real sector of the economy increased by 27.3 percent, reaching the level of UZS 42.7 trillion (US\$13.3 billion equivalent) as of January 1, 2016. The total volume of bank deposits increased by 28 percent, amounting to more than UZS 35.6 trillion (US\$11.1 billion) as of January 1, 2016. Capital adequacy ratio of the banking sector was three times higher than the requirements set by the Basle Committee on Banking Supervision (23.3 percent versus 8 percent), and liquidity ratio was 64.6 percent.

20. Total assets of non-banking microcredit organizations (microcredit organizations and pawn shops) of Uzbekistan made up about UZS 160 billion (US\$50 million equivalent) as of the beginning of 2017, which rose by 47 percent in 2016. According to the Central Bank of Uzbekistan, the balance of loan portfolio of the non-banking microcredit organizations grew by 45 percent during 2016 and reached UZS 140 billion (US\$43.7 billion equivalent) at the end of 2016. Total capital of the organization increased by 54 percent in 2016 and reached UZS 125.5 billion (US\$39.2 million).

21. **Due diligence of LSDP PFIs.** The potential PFIs under the project are expected to include all PFIs under the on-going HDP, that is, Asaka Bank, Hamkor Bank, Ipak Yuli Bank, Ipoteka Bank, Halq Bank, National Bank of Uzbekistan, Qishloq Qurilish Bank, Turon Bank, and Uzpromstroibank, that were selected for participation in HDP during the due diligence, which was carried out during summer 2014. The nine active PFIs of the HDP are submitting audited reports, as well as are being monitored by the RRA. They are expected to join the LSDP without additional due diligence, unless audited reports for 2016 warrant such due diligence. In addition, there are six new potential PFIs: Aloqua Bank, Asia Alliance Bank, InfinBank, Kapital Bank, Microcreditbank, and Orient Finance Bank. The listed potential PFIs are interested to support development of the livestock sector and working with the borrowers proposed under the project, as well as interested to participate in the training offered by the project. The due diligence of the potential six PFIs will be carried out in summer 2017 based on the audited results for 2016. An international consultant with relevant experience in due diligence of commercial banks will be engaged by the RRA, and the results of the due diligence will be subject to the Bank's no objection. The criteria for the initial due diligence and continued maintenance of a PFI status for commercial banks are provided below. These criteria shall also be used by the RRA to monitor the continued eligibility of the PFIs operating under the credit line. Preliminary data of sample PFIs are attached below.



Table 5.3. Key Information from LSDP PFIs (US\$ equivalent; unaudited; as of December 31, 2016)

Key indicators	Total Assets	Net Loan Portfolio	Total Term Deposits	Total Demand Deposits	Total Capital	Provisions as a % of Gross Loan Portfolio	All Overdue Loans as a % of Portfolio ^{a, b}	NPLs ^c	Ag. Loans as a % of Total Loan Portfolio	Demand for Funds from LSDP ^d (millions)
Kapital Bank	815,962,994.7	281,837,003.2	289,207,508	255,671.3	88,796.2	0.03	0.001	211,229.09	2.6	1
Microkreditbank	441,831,488.0	307,616,962.0	216,107,138	93,969,503.0	87,466,655	0.11	1.70	5,218,286	21.40	30
Qishloq Qurilish Bank	1,676,004,827.5	1,446,410,636.9	152,206,631.6	135,754,729.1	153,420,710.5	0.21	0.10	1,391,026.90	2.59	15
Halq Bank	1,355,707,462.8	727,210,875.2	215,132,281.8	254,182,286.8	171,725,363.6	0.10	4.68	34,056,842.38	15.41	>20
Ipak Yuli Bank	714,528,319.8	383,776,867.3	55,299,974	301,224,139.7	71,041,195.7	3.64	1.90	7,717,987.73	4.20	10
Turon Bank	283,684,137.0	157,532,890.0	23,761,301.0	111,160,523.0	39,948,952	0.42	0.20	317,311.00	8.31	10
Aloqa Bank	487,151,693.3	340,870,797.3	159,207,094.3	125,433,797.5	66,663,061.5	0.003	0.06	201,085.57	9.32	10
Agrobank	3,949,374,649	3,002,785,510	—	—	531,834,075	0.24	0.34	10,344,860	—	30
Asia Alliance Bank	358,192,668.1	227,429,065.9	113,387,770.3	170,854,030.4	60,415,115.1	1.67	1.260	—	0.33	10
Ipoteka bank	5,748,351,700.0	4,570,720,743.0	736,528,887.0	1,828,221,797.0	460,148,278.0	0.76	0.00	0.00%	3.89	Not yet informed
Asaka Bank	3,233,293,621.2	1,626,329,062.8	835,032,098.0	1,007,453,362.9	316,808,607.5	1.19	4.05	0.10%	3.80	Not yet informed
Orient Finance Bank	533,137,726.5	213,111,238.8	26,986,209.0	193,054,032.1	59,054,032.1	0.00	0.00	—	0.49	Not yet informed

Note: a. Loans overdue for 1 or more days.

b. Includes also restructured loans.

c. Loans in non-accrual status, overdue for 90 days or more.

d. Potential demand, in millions US\$ equivalent, for funds to finance the livestock sector during the implementation of the LSDP (project implementation period – 5 years).



22. **Lending to agriculture sector.** The authorities of Uzbekistan are continuing with the program to modernize and diversify the economy, including the diversification of the agricultural sector. The government sees livestock and horticulture, among other subsectors, as a way to diversify out of wheat and cotton production, which used to be the two strategic crops. The engagement of the financial sector in lending to agriculture is growing, and more new banks join the projects (RESP II had six PFIs, HDP has nine, and the LSDP could potentially have up to 15 PFIs, subject to results of the due diligence).

3.3. Interest Rates

23. **Deposit rates.** The deposits with the banking sector institutions continue to be predominantly demand deposits, with time deposits accounting for around 35 percent of total deposits. Therefore, deposit rates continue to be high in Uzbekistan: in local currency, 1–3 month deposits would have interest rates of around 17 percent, 6 month deposits would yield 18 percent and deposits above one year would yield 20 percent. U.S. dollar deposits carry interest rates of up to 7 percent for maturity of up to 6 months, and up to 9 percent above 6 months. However, as mentioned, even the very high interest rates do not help mobilize long-term deposits, as the overwhelming share of deposits are demand deposits.

24. **Loan rates.** The average interest rate, predominantly from own funds of banks, on domestic currency loans is around 24 percent and around 20 percent on loans denominated in foreign currency. The rates are lower when other sources of funds (such as from the IFIs) are used. Lending rates are generally high, reflecting a combination of factors including the scarcity of on-lending resources, in particular long-term, cost of capital (deposits carry very high rates as explained above), large overheads, reliance on retained earnings to finance growth, and so on.

25. **Other rates.** The Refinancing Rate of the Central Bank of Uzbekistan has been steadily declining over the past several years, and has been set at 9 percent since January 1, 2015 (the previous adjustment was made as of January 1, 2014 when the refinancing rate was reduced from 12 to 10 percent).

26. **Currency exchange rate.** The currency exchange rate is adjusted every 3–4 days, by a fraction (for example, from 3,204 to 3,210) mostly towards the devaluation of the local currency. Thus, the exchange rate was UZS 3,231 to a U.S. dollar on January 1, 2017, and has reached UZS 3,623 to a U.S. dollar on April 6, 2017.

27. **Other donors.** A number of IFIs are active in Uzbekistan, including ADB, the World Bank, Islamic Development Bank/Islamic Private Sector Development Corporation, KfW, and IFC (which works with three commercial banks in the sector), as well as Landesbank. Some of the banks have also developed links with microfinance investors, such as Blue Orchard. The cost of funds to qualified financial intermediaries from IFIs ranges between LIBOR+0.6 percent to LIBOR+1.5 percent, and between EURIBOR +1.5 percent to 7 percent from other financiers in foreign currency. In Uzbekistan soum, the cost of funds to the financial institution is between 4 percent and Refinancing Rate – 3 percent. Maturity of the funding to the banking sector varies between 5 years to 20 years (ADB, the World Bank, Landesbank AG). The margin of the MoF (in cases when the funding flows through the government) is 2 percent. The typical margins of commercial banks vary between 1 percent and 4 percent.



3.4. Directed Credit

28. **Main target groups.** The project's credit line will be targeted at all participants of value chains (farmers, processors and traders) in the livestock sector.

29. **Rationale for directed credit.** The credit line will support the much-needed investments in the livestock sector, contributing to the overall PDO. The project's interventions have been designed to address, in a *holistic manner*, the primary bottlenecks that have been identified as hindering the development of the sector. This is the approach undertaken in the project where the principal constraints relating to the need to strengthen the investment policy framework at the national/sector level, and access to animal health services, feeding, finance and technology at the producer and processor level have to be addressed in a coherent manner, to improve the performance of selected livestock sector value chains. Given this scarcity of long-term resources in the financial sector, this credit line will provide additional lending resources for use by the PFIs for on-lending to producers and processors, in particular for investment financing and value chain financing in support of the livestock sector development. In addition, the potential PFIs lack the skills necessary to engage in this sector — understanding the nature of the financial products (such as financing investments in animal-related subsectors, which have their specifics, and the value chain financing products) and their associated risks, and devising appropriate loan structuring and risk management strategies, and so on — and have expressed interest in such training. It has been demonstrated in other Bank's operations in the region and sector that training is most effective if it is accompanied by resources to actually put the learning into practice. Consequently, given the relative novelty of application of the long-term investment financing and value chain financing concepts in the livestock sector, a combination of a dedicated credit line and associated capacity building is deemed the most effective approach.

3.5. Subsidies

30. There are no direct subsidies envisaged under the credit line.

4. Eligibility Criteria for PFIs

31. In order to become a PFI, commercial banks and (potentially) other financial institutions have to qualify under a due diligence procedure in accordance with a set of operational, financial and management criteria indicated below, and have to sign a tri-partite Subsidiary Loan Agreement with the MoF representing the Republic of Uzbekistan and the RRA.

32. Potential PFIs (commercial banks) will be individually appraised, through a due diligence procedure, by the RRA and the IBRD and IDA. During the detailed due diligence assessment, particular attention will be given to the overall lending capabilities, and financial and portfolio performance. The PFI must have satisfactory financial and management structure, a satisfactory risk-based capital adequacy, an acceptable asset quality and lending performance, adequate liquidity, and the organization, management and technical staff and other resources required for the efficient carrying out of the operations.

33. In order to maintain its eligibility as a PFI, the commercial banks have to meet the said criteria at all times. The criteria for the initial due diligence and continued maintenance of a PFI status for



commercial banks are provided below. These criteria are used by the RRA to monitor the continued eligibility of the PFIs operating under the credit line of the LSDP.

A. General Standards:

- (a) Be in compliance with all banking laws and prudential regulations of the Central Bank of Uzbekistan.
- (b) Be interested and committed to servicing the range of clients, who are the intended beneficiaries of the LSDP.
- (c) Have or be willing to open branches or minibanks in the project districts or ability to ensure other ways of servicing the potential borrowers in the project districts.
- (d) Undergo an annual audit that is conducted in accordance with International Standards of Auditing by an audit company acceptable to the World Bank for the purposes of audit of financial institutions, with an unqualified audit opinion.
- (e) Have the necessary staff, knowledge, physical and other resources to implement the credit facility under the project.

B. Financial Prudential Standards:

- (a) At all times, meet the prudential regulations issued by the Central Bank of Uzbekistan.
- (b) Have a risk-weighted capital adequacy ratio of no less than 10 percent.
- (c) The maximum exposure to a single borrower or group of related borrowers shall not exceed 25 percent of the bank's tier one capital.
- (d) Have aggregate exposure to insiders (defined as members of the Board of Directors and the Management Board of such PFI, employees in management position and shareholders with voting rights in excess of 10 percent) of no more than 100 percent of tier one capital.
- (e) Have a positive net income for the current and two immediately preceding financial years, as reflected in the financial statements audited in accordance with the International Standards on Auditing.
- (f) Have acceptable asset quality and quality management policies, procedures and skills.
- (g) The aggregate share of Sub-loan/Lease/Subfinancing portfolio outstanding under the: RESP II, HDP and the LSDP, shall not exceed 75 percent of the PFI's capital according to International Accountants' Standards.

C. Corporate Governance and Managerial Standards:

- (a) Have a Board of Directors, responsible for setting the overall bank policy and perform appropriate oversight of the bank's operations.



- (b) Have a qualified and capable management team.
- (c) Have a sound business plan and appropriate budgeting and budget control procedures.
- (d) Have sound lending policies and procedures, including in respect of the entire credit cycle, problem loan management, write-offs of assets, credit approval authority, and so on.
- (e) Have satisfactory internal control and audit procedures, including accounting principles and procedures, and financial documents, internal controls and reporting, and operational controls, confirmed by external auditors.
- (f) Not be exposed to undue interest rate risk, as confirmed by annual audited financial statements.
- (g) Have an internal reporting and management information system capable of providing sufficient information necessary for managing the bank's operations, performance and risks.

5. Onlending Terms

34. Types of investments financed: A wide range of investments in livestock-related activities will be eligible for financing from the credit line, aiming towards enhanced competitiveness of the agribusinesses, access to new technologies, equipment and process upgrades for food safety compliance, and improved market access through establishment of market links. The project will provide working capital and investment finance to the livestock sector nationwide, including, among others, farming, processing, packing and marketing equipment and infrastructure, cooling facilities and equipment, upgrading of existing infrastructure and equipment required to comply with food safety or market-specific requirements. Agricultural inputs, such as seed, fertilizer, as well as processing raw materials, consumables, and other items necessary for livestock product production, processing, and trading will also be eligible for working capital financing. The priority will be given to investments that promote climate resilience and emission reduction, such as (a) climate-smart technologies and practices including sustainable land/landscape management, waste management systems to minimize GHG emissions, pollution and dissemination of pathogens, and (b) renewable energy supply (bio and solar energy) systems.

35. Types of Financial Products: The project's credit line will have the following lending products:

- (a) Investment loans to finance investments in the livestock sector, as described above;
- (b) Traditional working capital loans up to 18 months, to finance agricultural inputs and other short-term need in the livestock sector, as described above; and
- (c) The project will introduce financial instruments for financing of productive links and value chains, such as seasonal loans to allow pre-financing of agricultural production in contractual farming schemes, financing of marketing contracts, and other similar types of contractual arrangements with agro-producers. These products can be structured in a variety of ways and are expected to take the focus of the financial sector off the traditional forms of collateral, help agribusinesses borrow to deliver under signed contracts, and



develop relationships between farmers, agro-processors, wholesalers, retailers, and so on. Thus, some of the benefits for agro-processors include helping agro-processors to access finance, expand production, timely deliver on contracts, increase cash-flows, and ensure reliable supply of raw materials. To farmers, these products can ensure more reliable incomes, markets for their products, and access to knowledge.

36. The funds will be available both in Uzbekistan soums and U.S. dollars, based on the demand of the sub-borrowers. The interest rate to the PFIs is to be finalized with the MoF and will need to be acceptable to the World Bank. Tentatively, it is proposed that the interest rate for Subsidiary Loans denominated in U.S. dollars shall be equivalent to LIBOR+3 percent. This rate does not include any margin of the MoF and is designed to cover all IBRD and IDA fees and the Subsidiary Loan administration expenses.

37. The PFIs will receive credit line proceeds for up to 20 years, inclusive of a grace period of 5 years, and repay the principal amount to the MoF over the period of 15 years in equal semi-annual payments, upon expiration of the grace period. Any amounts, received as repayment from the sub-borrowers and not needed for repayment to the MoF, the PFIs will revolve internally, providing new sub-loans in compliance with the PDO and the operational guidelines for the credit line. The interest rate to the PFIs will be discussed and finalized during the preparation of the LSDP Credit Line Investment Guidelines.

38. The PFIs will set their own interest rates and repayment terms to final sub-loan beneficiaries based on their banking considerations. The PFIs will carry out full appraisal of sub-loans and sub-borrowers based on the agreed criteria, and will bear the full risk of subsidiary loan repayment.

39. The maximum loan size will be up to US\$1 million, to ensure financing for larger loans to invest in agro-processing equipment, as well as to support entire VCD. Working capital loans will be up to US\$150,000 for up to 18 months, and the value chain financing products will have the maximum loan size of up to US\$2 million and maturity will depend on the nature of the transaction this loan will finance. The maximum maturity of the sub-loans will not exceed 10 years or the amortization period of the asset, whichever is shorter. The actual size and maturity of the loans will depend on the type of investment financed, profitability of the activity, cash-flows generated, collateral, and other banking considerations.

40. Maximum financing share: The project will finance up to 100 percent of the sub-loans in U.S. dollars, while requiring 20 percent cofinancing from the PFIs for Uzbekistan soum sub-loans. The sub-borrowers will be required to contribute 20 percent of the subproject financing.

41. Additional requirements:

- (a) The credit line beneficiaries will have to comply with any applicable legislation and regulations on child and forced labor, in accordance with the relevant provisions of the Loan Agreement, Subsidiary Loan Agreement, and the LSDP Credit Line Investment Guidelines. The activities of all potential project beneficiaries will be pre-screened and regularly monitored to ensure that they are not related in any form to child or forced labor. Should child or forced labor cases be found, the right of the beneficiary to use the proceeds of the sub-loan will be suspended and terminated, and declared to be



immediately due and payable to the PFI. The PFI will return the funds to the RRA, and this amount will be cancelled from the IBRD loan and IDA credit. The PFI will be disqualified from providing subfinancings in the project, in accordance with the relevant criteria and provisions established in the PIP. The PFI will be disqualified from further participation in the project's credit line and the PFI's entire outstanding subfinancing portfolio financed by the project will be transferred to another PFI for servicing.

- (b) A requirement for accessing value chain product financing by a sub-borrower under this credit line will be an upstream (processing, trade, and so on) or down-stream (production) contractual relationship within the value-chain, to ensure the viability of the productive links financed under the credit line.
- (c) Sub-borrowers under the value chain arrangements will have to comply with the national requirements for food safety.

42. Each subsidiary loan agreement with the PFIs will be signed for a specific amount, based on the demand. Progress of disbursements will be monitored by the RRA and the World Bank team, to recommend flexibility in amending the subsidiary loan agreement amounts in case when some PFIs are much slower than others. The withdrawal procedures are briefly described in the paragraph below. Given the likelihood that a number of the PFIs will qualify for participation, it will help ensuring the competitive environment necessary for the sub-borrowers to benefit from competitive terms and conditions of the financing.

43. **Withdrawals from the credit line.** Periodically, as agreed between the PFI and the RRA, PFIs will prepare SOE, in the agreed format, listing already financed sub-loans, as well as sub-loans/leases approved by its Credit Committee but not yet financed.¹⁸ The SOE will be submitted together with the one-page Sub-loan Information Sheet for each sub-loan. The Sub-loan Information Sheet will contain the key terms and conditions of the proposed sub-loan. The RRA will review the list of sub-loans and the one page summaries for every sub-loan to check the eligibility of the sub-loan against the criteria under the project (it is only a "technical" review by the RRA; the financial appraisal of the sub-loan/lease, loan structuring and all banking considerations lie with the PFI). Upon approval, the money will be transferred to the PFI.

44. Prior review of sub-loan applications by the World Bank will be carried out in the following cases: (a) by each qualified PFI will submit the first three Investment Subproject proposals and first three Value Chain Financing product proposals, irrespective of the amount of the proposed sub-loan; as well as (b) any sub-loan proposals in an amount exceeding US\$300,000 equivalent for New PFIs (that is, those that have will have been qualified through the due diligence process, but without prior experience in working on Bank-financed credit lines), and US\$500,000 equivalent for all other PFIs. The prior review threshold for New PFIs is also expected to reach US\$500,000 once it has been established that the PFIs are providing good quality proposals.

45. **TA to PFIs (US\$0.5 million):** The project will implement a capacity building program for the financial institutions involved in the project, to support their activities in value chain financing. The

¹⁸ In cases when the PFI does not have an opportunity to extend financing due to the short maturity of the available financing or other considerations.



training program will cover: (a) structuring of financial products to support livestock sector; and (b) value chain financing products. The training will be about 5 days long, and will be targeting loan officers and branch managers of PFIs. An international bank training company will be hired under the project, to do the initial training, as well as transfer this specific knowledge to a local bank training company, which will take over the training activities at the later stages of the project. The PFIs will also receive training in environmental aspects of livestock project financing, which will be delivered by a local consulting company.

6. Monitoring

46. The compliance of sub-loans with the eligibility criteria, monitoring of the sub-loan files, and the PFI compliance with the eligibility criteria will be ensured by the RRA. Regular visits to PFI branches to review the loan files for completeness and visits to borrower sites are two key components of the monitoring of credit line implementation. Based on the agreed procedure, on-site visits to the sub-loan sites are carried out not later than within (4) months from the disbursement of the sub-loan. The work is led by the Credit Line Component Coordinator at the RRA in Tashkent. The component will have M&E formats (as part of the operational manual to be developed), which will track both the physical implementation of the component, as well as the impact, based on a set of M&E indicators. In addition, independent Impact Assessments for the project, covering also the credit line activities, will be done from time to time.

47. Progress reports will be produced quarterly, which will also include reports on monitoring of the financial status of the PFIs, including key performance indicators, such as portfolio quality, liquidity ratios. The RRA also ensures timely collection of the audited reports of the PFIs, in compliance with the provisions of the subsidiary loan agreement. An environmental specialist will carry out screening of the proposed sub-loans from the environmental point of view. In addition, continued PFI compliance with the eligibility criteria will be verified by the Bank's team on annual basis, based on the review of the audited statements of the PFIs and other due diligence procedures, as required.

48. The following indicators will be measured under the credit line subcomponent:

(a) Intermediate Results Indicators (in the Results Framework)

- (i) Change in aggregate portfolio lending by PFIs to livestock sector;
- (ii) Subfinancings provided under the credit line (including to women-beneficiaries);
- (iii) Direct project beneficiaries (including female beneficiaries);

(b) In addition, the following indicators will be tracked under the project:

- (i) Number of financial sector staff (loan officers and branch managers) trained and supporting investments in livestock sector;
- (ii) Number of Sub-loans/leases provided under the credit line (gender dis-aggregated);
- (iii) Portfolio at Risk (SME) - %;



- (iv) Number of jobs created as a result of the subproject.

7. Sustainability, Benefits and Risks

49. **Arrangements after the LSDP closing.** The credit line funds will continue revolving in the PFIs for a period of 20 years, with a gradual repayment of the funds to the MoF according to the agreed schedule. Interest payments on the subsidiary loans and principal amounts repaid by the PFIs will be channeled to the MoF, which will use the money to repay to IBRD and IDA. After the end of the 20-year period, the MoF may choose to on-lend the money back in the banking sector for an extended period of time under a separate legal arrangement. Agreements will be made with the MoF towards the project closing that, after the project closing, a department in the MoF will be assigned to carry out the monitoring of the credit line implementation.

50. **Sustainability of the operation.** The technical sustainability of the credit line will be ensured through provision of relevant training and hands-on TA to the PFIs. The PFIs will be trained in applicability of the new financial products, assessing the suitability and effectiveness of these new products, and on mitigation of the related risks. The sustainability of the funding that the PFIs will be receiving will be ensured by using the RRA that has accumulated extensive experience and continues to monitor the implementation of the previous World Bank-financed credit lines.

51. The benefits will accrue to PFIs in form of an expanded portfolio in the rural/agricultural market niche, expanded menu of lending products, and broadened client base through the process of “nurturing” their clients. The benefits to farmers and agribusinesses will be in the form of improved access to finance, improved productivity, resulting from the investments, better access to markets and profitability, including from the value chain financing instruments. The improved farm machinery will result in increased yields due to improved breeds, more efficient equipment and machinery, technical knowledge on feeding, breeding, and animal disease control. The diversification of rural economy will bring services closer to the consumers, and will increase incomes where profitability of agriculture is marginal.