



Central Asian Countries Initiative for Land Management  
(CACILM)

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May 2007

Kyrgyz Republic: Southern Agricultural Area  
Development Project

Project Document

## CURRENCY EQUIVALENTS

(as of 04 April 2007)

Currency Unit	–	som (Som)
Som1.00	=	\$0.026
\$1.00	=	Som38.05

## ABBREVIATIONS

AADP	–	Agriculture Area Development Project
ADB	–	Asian Development Bank
CACILM	–	Central Asian Countries Initiative for Land Management
CACs	–	Central Asian countries
CBD	–	Convention on Biological Diversity
CIDA	–	Canadian International Development Agency
CMPF	–	CACILM Multicountry Partnership Framework
DWR	–	Department of Water Resources
EA	–	executing agency of the Global Environment Facility
FAO	–	Food and Agriculture Organization of the United Nations
FFS	–	farmer field schools
GDP	–	gross domestic product
GEF	–	Global Environment Facility
GM	–	Global Mechanism of the UNCCD
GTZ	–	German Agency for Technical Cooperation
IBRD	–	International Bank for Reconstruction and Development
IA	–	implementing agency of GEF (World Bank, UNDP, UNEP)
ICARDA	–	International Center for Agricultural Research on Dry Areas
IFAD	–	International Fund for Agricultural Development
ISF	–	Irrigation service fees
LD	–	land degradation
MAWRPI	–	Ministry of Agriculture, Water Resources, and Processing Industry
M&E	–	monitoring and evaluation
MOEF	–	Ministry of Economy and Finance
NAP	–	national action plan
NBKR	–	National Bank of Kyrgyz Republic
NGO	–	nongovernment organization
NPF	–	national programming framework
O&M	–	operations and maintenance
OIP	–	Onfarm Irrigation Project
ORT	–	oblast rehabilitation teams
PMU	–	Project Management Unit
SAADP	–	Southern Agriculture Area Development Project
SDC	–	Swiss Agency for Development and Cooperation
SLM	–	sustainable land management
SLMIS	–	sustainable land management information system
SPA	–	Strategic Partnership Agreement for UNCCD Implementation in the Central Asian Countries
SRAP-CD	–	Sub-regional Action Programme for Central Asian Countries on Combating Drought and Desertification
UNCCD	–	United Nations Convention to Combat Drought and Desertification

UNDP	–	United Nations Development Programme
UNEP	–	United Nations Environment Programme
UNFCCC	–	United Nations Framework Convention on Climate Change
WUA	–	water users association

## GLOSSARY

oblast	–	province
raion	–	district
<i>aiyl okmotu</i>	–	a village government body representing one or more villages

## CONTENTS

		Page
I.	PROJECT SUMMARY	1
	A. Background	1
	B. Objectives	5
	C. Project Approach	5
	D. Impact and Outcomes	6
	E. Activities and Project Components	6
	F. Key Indicators, Assumptions, and Risks	14
II.	COUNTRY OWNERSHIP	15
	A. Country Eligibility	15
	B. Country Drivenness	15
III.	GEF PROGRAM AND POLICY CONFORMITY	16
	A. Conformity with GEF Operational Program and Strategic Priorities	16
	B. Benefits from GEF Support	16
	C. Sustainability	20
	D. Replicability	20
	E. Stakeholder Involvement / Intended Beneficiaries	20
	F. Monitoring and Evaluation	21
IV.	FINANCIAL MODALITIES AND COST EFFECTIVENESS	22
	A. Financing Plan and Cofinancing Sources	22
	B. Incremental Cost Analysis	24
	C. Cost Effectiveness	25
V.	INSTITUTIONAL COORDINATION AND SUPPORT	25
	A. Core Commitments and Linkages	25
	B. Consultation, Coordination, and Collaboration among Implementing and Executing Agencies	26
	C. Project Implementation Arrangements	26

## ANNEXES

- A. Incremental Cost Analysis under GEF Alternative
- B. Design and Monitoring Framework
- C. Monitoring and Evaluation Plan
- D. Estimated Costs
- E. Work Plan
- F. Public Participation Plan
- G.1 Country Map
- G.2 Maps of Project Area
- H. Consultants Terms of Reference
- I. ADB SAADP Project Report and Recommendations to the President
- J. Letters of Endorsement (GEF Operational Focal Point and UNCCD National Focal Point)

## I. Southern Agriculture Area Development Project – Summary

### A. Background

#### 1. Rationale

1. **General.** The proposed project is included in the National Investment Program of the National Programming for Sustainable Land Management of the Kyrgyz Republic<sup>1</sup>. The Southern Agriculture Area Development Project (SAADP)<sup>2</sup>, has been prepared by the Asian Development Bank (ADB) and was approved by the ADB Board in January 2007<sup>3</sup>. The requested GEF grant would help support enhanced sub-components aimed at strengthening capacity for adoption, upscaling and dissemination of sustainable land management (SLM) practices and knowledge.

2. **Land degradation.** Lying within the Tien Shan and Pamir Mountain ranges, the Kyrgyz Republic is largely defined by its mountain ecosystems, covering some 90% of the territory. Approximately 14% of the population lives in the high mountain regions of the country (above 1500 meters in elevation), and mountains dominate all aspects of life: economic, social, environmental, and cultural. The country's mountain ecosystems are diverse and extremely fragile, and those who live in the high mountain regions are among the poorest and least served by public institutions. But the majority of its agricultural products come from flat lands adjacent to rivers. There is a strong correlation between poverty and employment status and land degradation. Approximately 90% of agricultural lands of the Kyrgyz Republic can be defined as prone to desertification. Over 40% of farmlands are considered as already in a degraded state. Land degradation matters hugely in the Kyrgyz Republic given the fact that agriculture is the main activity of the rural population, which accounts for 75% of the country's poor and about 80% of the extremely poor. Land degradation processes lead to a decrease of fertility on arable lands, and natural forage lands, as well as reduced animal breeding capacity, and therefore result in decreasing incomes, declining quality of life, and migration from rural villages to urban areas of the Kyrgyz Republic and abroad.

3. **Causes of land degradation.** Land degradation processes are the products of both these anthropogenic and other natural factors and their combinations. Local causes of land degradation in the Kyrgyz Republic include: (i) unsustainable agricultural activities; (ii) weak linkages between land users, state agencies and the private sector; (iii) increase of land use conflicts; (iv) excessive logging; and (v) overly intensive use of pasturelands without sustainable practices such as pasture rotation. Local actions are mainly determined by production decisions of individual households. These decisions are a function of natural resource endowments, the policy and incentive framework, human resources, cropping patterns, and local traditions. Underlying causes exacerbating land degradation can be economic, social, or bio-physical, and include: (i) lack of enabling policy and incentive framework; (ii) weak institutional capacity; (iii) lack of mainstreaming of land degradation and SLM concerns into the planning and budgetary processes; (iv) insufficient harmonization of legislation; (v) disincentives for investment in land

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<sup>1</sup> The National Programming Framework for Sustainable Land Management was developed under the Central Asian Countries Initiative for Land Management (CACILM).

<sup>2</sup> The project was originally included in the CACILM approved work program under the title "Integrated Agricultural Management and Land Improvement Project". The name was subsequently changed to the Southern Agriculture Area Development Project during the final processing of the project.

<sup>3</sup> Project Number: 31196, January 2007- Proposed Loan and Asian Development Fund Grant - Kyrgyz Republic: Southern Agriculture Area Development Project

(e.g. taxation policies); (vi) excessive transaction costs in marketing; (vii) lack of diversification in the rural economy; and (viii) lack of pasture management mechanisms and unclear regulations on leasing. Among these underlying factors, policy, legislative, institutional and incentive frameworks have the potential to function as the main drivers for change.

4. Like most of Central Asia, a dynamic interplay of on-the-ground anthropogenic factors with increased climatic variability is driving land degradation processes in the Kyrgyz Republic. Soil quality, freshwater supplies, vegetation, and the health of crops are easily degraded. The traditional practices have become less practical due to changing economic and political circumstances coupled with population growth. It is now generally acknowledged that current land and water management practices, which among other things have failed to consider the impact of climate change, are among the primary causes of land degradation. Throughout Central Asia, the major risk of increased climatic variability associated with global climate change is the combination of thermal (i.e. higher temperatures) and water (i.e. less water available in the summer) stresses. Central Asian countries are already quite vulnerable to extreme climatic events such as droughts and floods due to the region's topography and aridity. The frequency and magnitude of these extreme events may well increase. Agricultural productivity in Central Asia is likely to suffer losses because of higher temperatures, more severe drought, worsening flood conditions, and increased soil erosion.

5. Historical records suggest that over the past 100 years the temperature in the Kyrgyz Republic has increased by 1.6°C. According to climate assessment results, it is anticipated that by the year 2100 the most probable scenario of climate change will be (for the whole area) – an average annual temperature increase of 3°C and a 10-40% increase in annual precipitation, compared to 1961–1990 levels<sup>4</sup>. Climate change will have an effect on the state of the water and biological resources, agriculture, and the population's health.

6. According to the forecasts, the total flow of the main rivers will change from 0.7 to 1.8 times, depending on the degree of temperature and precipitation increase. Areas of glaciers will continue to decrease, while small ones may disappear. The decrease in glaciers will ultimately lead to reduced river water, mainly at the expense of reducing summer flows in the irrigation period. As a result, the capacity of irrigated land may significantly reduce, which will correspondingly reduce agricultural outputs. Though the impact of climate change on the biodiversity of the country has only been estimated and requires additional research, some principal results are clear. It is expected that the upper altitudinal limit of the desert ecozone will increase by 200–400m, steppes by 200–250m, forest-meadow ecozone by 120–150m and the sub-alpine belt by 100m. It is also expected that climate change will lead to the increased intensity and frequency of natural disasters such as landslides, floods, avalanches, etc.

7. **Categories of land degradation and its impact.** The key problem areas of land degradation are: (i) soil degradation, which includes fertility depletion, soil erosion, loss of vegetative cover, and salinity; (ii) deteriorated irrigation systems, water loss and inefficient water utilization; (iii) degraded pasturelands; (iv) deforestation and inadequate regeneration and afforestation; (v) loss of genetic and biodiversity resources; (vi) floods and landslides; and (vii) deterioration in water and air quality and pollution. The area of arable land is 1.36 million hectares (ha), including almost 60% of sites subject to water erosion and wind erosion. In the case of lands used mostly as pastures which cover approximately 9 million ha and can support 11 million head of cattle, about 30% are already at the phase of manifested desertification, 27%

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<sup>4</sup> 1<sup>st</sup> National Communication of the Kyrgyz Republic under the UN Framework Convention on Climate Change (2003). Bishkek – 98 pp.

are at middle stages, and 17% are at early stages of desertification. Nearly 2,000 ha of lands are polluted with dangerous radioactive substances having long terms of half-decay and the area affected with the residual amount of chemicals used in the soils is over 200,000 ha. The areas of potentially erosive lands reach 85% within the whole of the Republic, which is mainly caused by mountain topography. In the majority of regions of the Republic, the content of humus has decreased by 20-45% in arable soils in comparison with their virgin analogues.

8. **Rural Development Issues.** Agriculture in the Kyrgyz Republic continues to underperform; many of the farms and agro-processing facilities are not operating efficiently and are not profitable, and some are not financially viable. Among the main factors inhibiting more effective agriculture growth and development are the following: (i) farm size, ownership structure, and farm management practices significantly differ across the regions; (ii) farm productivity is generally low because of limited use of fertilizers and quality seeds, increasing land degradation (declining soil fertility, increasing salinity, water logging, etc.), poor farming practices (often due to the small size of farms and inexperience of some farmers), limited access to credit, limited access to machinery services, irrigation systems that require rehabilitation, inadequate or unaffordable extension services, and inadequate marketing and processing facilities; (iii) the agricultural research system and statistical information services have not changed significantly to support agriculture in a market oriented economy; (iv) the vocational education system has not changed and does not offer the formal and informal training needed by farmers, many of whom have limited farming experience; and (v) the privatization and transition process has dismantled the former support services to agriculture. While a new system of services, based on private ownership and market principles, is emerging it has not adequately kept pace with the changing structure, ownership, and management of farms; and new institutions are slow to develop in the absence of an enabling business environment, available finance, farm profitability, and effective demand for inputs and services. With the prevailing situation, most farmers and enterprises continue to conduct transactions on a barter basis.

## 2. Government Responses

9. According to the Revised National Report for Combating Desertification (2002), both Government and non-government organizations consider that the main priorities to address land degradation are strengthening institutions of public natural resource management and increasing economic opportunities for the rural population. The Government has several relevant initiatives in place, for example, the State Programme on Land for the period until 2005, and the planned updating of the National Environment Action Plan. Institutional measures undertaken to implement the United Nations Convention to Combat Desertification (UNCCD) include the establishment of the Coordination Board (CB) of UNCCD in the Kyrgyz Republic, under the Ministry of Agriculture, Water Resources and Processing Industry (MAWRPI). The Kyrgyz Irrigation Research Institute acts as the National Center CCD, and promotes sustainable land management concepts in the development of the strategy and action plan on the development of mountain territories, and in the discussions of the coordination board under the Prime Minister on the development of tourism in the Kyrgyz Republic. In addition, relevant legislation and resolutions on sustainable land and water management have been passed, for example, the law on Water Users Associations (2002), the resolution on agricultural lands monitoring (1999), the Land Code, Forestry Code and most recently, the Water Code (2005).

10. Kyrgyz Republic acceded to the UNCCD in December 1997. The Convention was ratified by the Jogorku Kenesh (Parliament) of the Kyrgyz Republic in 1999. The National Action Plan (NAP) to combat desertification was approved on 8 December 2000. The Kyrgyz Republic

has also acceded to Convention on Biological Diversity (CBD), the UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Treaty (which took effect in February 2005), the Montreal Protocol and the Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention). The National Environmental Action Plan (NEAP), adopted in 1995, helped shape the evolution of the country's environmental laws and regulations during the 1990s, but is now in need of being updated. From the perspective of the NPF, the other plans of particular relevance are: (i) Agrarian Policy Concept of the Kyrgyz Republic to 2010; (ii) National Forest Programme (2005–2015); (iii) Strategy and Action Plan for Development of Mountain Territories; and above all, (iv) Kyrgyz National Poverty Reduction Strategy (NPRS).

11. The NAP is a well-structured document covering: geo-strategic location of the country; social and economic situation; factors and the scale of desertification; priority directions of the actions and carried out projects and programs; proposals on pilot projects; the legal base for implementation of the NAP; and the concept and scheme of implementing the NAP to combat desertification. However, the NAP lacks operational focus, and is thin on policy and program content. It relies on “stand alone” projects or activities aimed at combating desertification, rather than incorporating these activities as into cross-sectoral programs of key ministries. Issues such as soil erosion, salinization, water logging, wind erosion, or loss of vegetative cover need more comprehensive and cross-cutting approaches requiring involvement of a number of agencies.

12. **Central Asian Countries Initiative for Land Management.** The Central Asian Countries Initiative for Land Management (CACILM) is proposed as a 10-year program of country-driven action and resource mobilization (July 2006–June 2016) to support a sequenced set of high-priority activities to achieve: (i) strengthened policy, legislative, and institutional frameworks, creating conditions conducive for sustainable land management; (ii) increased capacity of key institutions responsible for planning and implementing land management interventions; and (iii) improved land management and natural systems through the combined impact of appropriate enabling conditions and targeted project investments.

13. The CACILM Multicountry Partnership Framework (CMPF) provides a comprehensive package of actions and activities that together will bring about adoption of SLM broadly across the Central Asian Countries with attendant global benefits of restored and protected ecosystems, biodiversity conservation, improved quality of transboundary rivers, and minimized contribution to climate change. The CMPF guides the activities of the CACILM partnership. The CMPF will undertake: (i) program coordination, (ii) multicountry activities, and (iii) support for implementation of country level investments and technical assistance.

14. Within the CACILM Framework, the Kyrgyz Republic has developed a National Programming Framework (NPF) for Sustainable Land Management as part of CACILM. The NPF defines and describes the problems of land degradation; analyzes the natural and human-made causes of land degradation in the unique historical and cultural contexts of each country; and present a prioritized program of projects and technical assistance, and related concept papers. A series of multi-stakeholder meetings were held to develop the NPF in a participatory manner. The NPFs were then reviewed at national workshops in October 2005 and February 2006. The NPFs contain mechanisms for ongoing consultation and coordination at national level that will further enhance participation of stakeholders and increase awareness and commitments by national and development cooperation partner stakeholders.

15. This proposed project has been identified as one of the priority projects to assist the Government in addressing land degradation. The Kyrgyz NPF spells out the concept of SLM as

a multi-faceted instrument to control land degradation, stabilize ecosystem structure and services, and contribute to rural development, agricultural growth, poverty reduction and sustainable livelihoods. Improvements needed to promote SLM in the Kyrgyz Republic, within the framework of CACILM, are conceived at the level of (i) on-the-ground interventions; (ii) policy and institutional changes/reforms; (iii) national management and governance; (iv) management information and monitoring systems; (v) participation of civil society and private sector; and (vi) improving synergies between the environmental conventions. The SAADP fully reflects this approach.

## **B. Objectives**

16. The Project's expected impact is nation-wide adoption of improved agricultural and pasture management techniques. The Project is expected: (i) to increase the productivity and profitability of farms and agribusinesses; (ii) to improve management of pasture lands and orchards to reduce land degradation and enhance ecological stability; and (iii) to increase uptake and upscaling of sustainable land management practices, and sustainable land use planning and environment impact assessment systems..

## **C. Project Approach**

17. The project will follow an integrated area-based approach, similar to the ongoing Agriculture Area Development Project (AADP) in the Chui region of the Kyrgyz Republic, which is financed by ADB. The project benefits from lessons from AADP, such as the need for more time to allow effective participation to increase stakeholders' ownership of the project; promoting a "cluster" approach to facilitate economies of scale and the development and expansion of agribusiness services, and enhancing the partnership approach with other government, private sector, and development agencies. These approaches will initially develop a clear, realistic, and prioritized strategy that will increase the productivity of farms and non-farm enterprises within an environmentally sustainable management framework with an emphasis on sustainable land management, and increase the scope and depth of economic opportunities for farm and non-farm rural residents. This project, with the support of the Government and partnership with other development agencies in the area, will improve the coordination of development activities, efficient use of resources, and effective implementation and monitoring of development activities; generate economies of scale for marketing and processing activities; more effectively stimulate and encourage private sector development through farmers' groups, cooperatives, and private companies; and provide a more dynamic environment for piloting and implementing policy, legislation and regulations, and institutional mechanisms.

18. **Project area.** The project will be implemented in the three regions of Batken, Jalal Abad, and Osh, which make up the south of the Kyrgyz Republic (see Map Annex G.2). Of the 543,400 households living in these regions, 32% live in highland villages and 68% in the lowlands. The proportion of the extreme poor and very poor is higher in the highland areas compared to the lowlands; however the percentage of poor is equal at 11% in both highlands and lowlands. Main agricultural crops in these regions are wheat, maize, sunflower, and cotton. In Batken and Osh, the most important crop in terms of area planted is wheat, whereas cotton is the most important crop in Jalal Abad. In the project design, it is expected that within each region, a primary cluster comprising two or more regions (districts) are being selected for project targeting. This will bring more geographical focus to the project.

## **D. Impact and Outcome**

19. The Project's expected impact is nation-wide adoption of improved agricultural, orchard, and pasture land management techniques. The expected outcome of the Project is a sustainable increase in land productivity and profitability.

## **E. Activities and Project Components**

20. Baseline activities will be undertaken in pursuit of each of the five components and the Project's overall logic are described in the logical framework (Annex B). These activities, supported by an ADB loan project (Annex I) and Government of the Kyrgyz Republic comprise four technical and one project management component, with related outputs and activities. GEF-financed activities will be included in components 1, 4 and 5 as described below.

### **1. Farm Development**

21. The Project will support agricultural and legal advisory services by (i) improving the capacity and technical scope of existing advisory service providers, (ii) increasing the quality and outreach of advisory services, (iii) facilitating access to existing legal services, and (iv) increasing the availability of and access to credit by farmers.

22. The Project will assess the situation and prepare a plan for project interventions in each village government. This assessment will (i) be undertaken with community participation; (ii) describe the current status of farms, agricultural businesses, and other agricultural organizations; (iii) identify potential development opportunities and partner organizations; and (iv) outline a plan of project interventions for the village government.

23. To improve the capacity and technical scope of advisory services (output 1.1), high-quality training materials will be developed to improve the technical skills of advisory staff and their capacity to deliver advice to farmers. The Project will contract national organizations with appropriate experience to (i) assess and, where necessary, upgrade existing training materials; (ii) identify new technologies to address farmers' needs and improve the sustainability of farming systems; and (iii) train the advisory service providers contracted under the Project in the delivery of new technologies and methodologies for training small farmers. All training materials used by the service providers will be approved by the contracted organization and all advisory service staff will be trained in techniques for delivery of courses to small farmers.

24. To increase the quality and outreach of advisory services (output 1.2), the Project will contract a suitable national organization to set up farmer field schools (FFSs) to increase the field experience of skilled trainers in crops that are particularly important to the project area, such as tree crops, vegetables, and cotton. These FFSs will involve three levels of participants: master trainers, trainers, and farmers. A master trainer from the contracted organization will train 16 trainers, divided into 8 pairs, 2 days per week for 16 weeks throughout the growing season in year 1. Simultaneously during year 1, each pair of trainers will train up to 18 farmers under the supervision of a master trainer using the same training method. FFS trainees will establish their own demonstration plots and use these to demonstrate up to two technologies. FFSs will involve 1 day of training for farmers each week throughout the growing season. In year 2, the training with the same 8 pairs of trainers continues, but is less intensive and involves

new technologies. Trainers continue the FFS with the farmers from year 1 and an additional 18 new farmers join each FFS. There will be two cycles of 2 years for FFSs.

25. The Project will also finance the expansion of village advisory services to increase their outreach to more *aiyl okmotu* and more farmers within each village government and to improve farmers' skills in crop production (including tree crops), livestock production, management, finance and income diversification, integrated pest management, on-farm water management, and pasture management. The Project aims to create competition among the advisory service providers by procuring services from more than one provider and providing an incentive for improving services. The contracted service providers will provide intensive field training and train village advisers. The village advisers will be respected successful farmers in the villages who will lead groups of 10–15 farmers with common agricultural interests.

26. The Project will facilitate access to legal advisory services (output 1.3) to improve farmers' understanding of their legal rights, improve contract enforcement, and create greater confidence in legal contracts to provide a more stable climate for investment. The Project will identify farmers' legal problems, and in cases where the Project cannot solve them, farmers will be referred to the Legal Assistance to Rural Citizens Association of Lawyers. The Project will sign a memorandum of understanding with the association to provide legal services on a retainer basis and will cover the costs of advice to farmers, but not the costs of further resolution of activities provided by the association, for which farmers will be required to pay.

27. The Project will provide funds for a credit line (output 1.4) to help farmers undertake their investment needs. The credit line will be provided to financial institutions for onlending to target farmers and will include both working capital and investment finance. Several financial institutions are expected to participate in the Project. The participatory financial institutions (PFIs) will have to (i) be legally registered with the National Bank of Kyrgyz Republic (NBKR), (ii) have their accounts audited by an international audit company, (iii) adhere to the NBKR's prudential standards, and (iv) provide a business plan that is acceptable to ADB and is updated annually. A competitive process will be followed to select appropriate PFIs and due diligence will be undertaken on all potentially qualified and interested PFIs. PFIs will be required to meet the following criteria: (i) be financially sound; (ii) have adequate credit and risk management policies, operating system, and procedures; (iii) comply with prudential regulations; (iv) have acceptable corporate and financial governance and management practices; (v) have sound business objectives and strategies and/or plans; (vi) have autonomy in lending and pricing decisions; (vii) have adequate policies, systems, and procedures for assessing and monitoring the impacts of subprojects; and (viii) have environmental screening processes acceptable to ADB. The final list of qualified microfinance institutions will be selected and agreed with ADB.<sup>5</sup>

## **2. Agribusiness Development and Marketing**

28. The Project will (i) increase and improve contractual arrangements between farmers and agribusinesses for input supply, machinery services, and wholesale and processing enterprises; (ii) improve agribusiness performance; (iii) increase the availability of and access to appropriate finance for agribusinesses; and (iv) increase public investment in physical market infrastructure.

29. The Project will facilitate and support contractual arrangements (output 2.1), including those pertaining to domestic and export marketing, by helping farmers identify, negotiate with, and conclude equitable contracts with buyers and enterprises associated with collecting,

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<sup>5</sup> The credit line for agribusinesses (output 2.3) will also be channeled through PFIs meeting the same criteria.

preparing, and transporting produce to buyers. Farmers will also be given the knowledge and information needed to plan their production for sale to the market. The Project will also help farmers identify strategically important processors, agricultural produce wholesalers, input suppliers, and machinery contractors (agribusinesses).

30. The Project will contract the services of qualified agencies whose qualifications and experience are acceptable to ADB to support the development of contracts between farmers or farmers' cooperatives and identified agribusinesses. Currently, the Agribusiness Competitiveness Center and the Marketing Development Service satisfy ADB's criteria. The focus will be on supporting existing informal marketing groups and marketing cooperatives, but where required, the Project will provide support for the organizational development of emergent informal marketing groups. Where more intensive support for the development of marketing cooperatives is required, the Project will provide organizational development support directly with the assistance of cooperative development projects such as the GTZ-funded Development of Trade and Service Cooperative Project and the Raiffeisen Foundation for Development Cooperatives.

31. The Project will improve agribusiness performance (output 2.2) by providing advisory services to agribusinesses serving the target farm areas. These services will involve two types of contracts: one for input suppliers and machinery-related services and one for processors and agricultural produce wholesalers. The Project proposes to contract the services of agencies with appropriate qualifications and experience, such as the Association of Agribusinessmen of Kyrgyzstan and the Agribusiness Competitiveness Center. The advisory services will make a long-term consultancy facility available to agribusinesses using national, regional, or international consultants as necessary to provide general management support, and specifically to support agribusinesses in planning and managing agribusiness investments financed by the Project. Consultancy may be provided to more than one business, depending on the size and needs of the agribusiness, but in all cases each consultant will work with no more than three agribusinesses simultaneously.<sup>6</sup> Specialist short-term consultants (e.g., processing engineers) may also be provided to supplement the long-term consultants where specific support is required, or to support other agribusinesses that require shorter-term TA. Agribusinesses will be required to contribute at least 5% of the cost of consultancy fees.

32. The Project will increase the availability of and access to appropriate finance for agribusinesses (output 2.3) by providing funds for a credit line to help agribusinesses implement their investment plans. The credit line will be provided to PFIs for onlending to agribusinesses and will be available primarily for investment finance, but where necessary, some funds will be provided for working capital. Part of the credit line may also be used to provide alternative forms of finance, such as equity investment in agribusinesses, subject to ADB's agreement to the terms and conditions.

33. To further support marketing activities under this component and to ensure that farmers have access to functioning storage and cooling facilities, the Project will rehabilitate existing storage and cooling facilities or construct new facilities on existing facility locations (output 2.4). Where facilities remain under state ownership, the Project aims to transfer the management of such facilities to the private sector. In cases where the *aiyl okmotu* own the facilities, prior to their rehabilitation, the relevant village government will obtain a legally binding commitment from the proposed private sector operator to (i) operate and manage the cooling and storage facility

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<sup>6</sup> The Project recognizes that the allocation of businesses to each consultant should be organized in such a way that each consultant does not support businesses competing in the same technical or geographic area.

following its rehabilitation; and (ii) lease the facility from the village government for a period of at least 5 years, with the option to purchase the facility on completion of the lease term. The private sector operator will make lease payments to the MOEF's State Development Fund under an agreement on commercial terms that shall provide for lease payments in an amount sufficient to cover the commercial value of the rehabilitated facility. In cases where the facilities are currently owned by a functional cooperative organization, the organization will enter into a repayment agreement with the MOEF's State Development Fund to repay the costs of rehabilitation of the facility over a period of 7 years, with a grace period of 2 years, and to pay interest at the inflation rate for the previous calendar year as determined by the National Statistics Committee. In cases where the facilities are currently owned by a cooperative organization that is inoperative, the organization will be required either to transfer ownership back to the relevant village government, or to transfer or sell the facilities to a functional marketing cooperative. Rehabilitation will then be financed in the same manner as for facilities owned by a village government (where such facilities are transferred back to a village government) or as for facilities owned by a functional cooperative (where such facilities are sold or otherwise transferred to a functional cooperative).

### **3. Irrigation and Drainage**

34. The Project will cooperate with the World Bank on development of the water users associations (WUAs) and will directly support rehabilitation of irrigation and drainage infrastructure.

35. Under a memorandum of understanding between the ADB-financed AADP and the World Bank-financed Onfarm Irrigation Project (OIP), the latter project has established WUAs and trained members in the Chui Oblast, including for systems selected for rehabilitation by the AADP. This highly successful cooperation between ADB and the World Bank will continue under this Project. Based on agreements reached between the Government, ADB, and the World Bank, a tripartite agreement will be prepared defining how WUAs and oblast and raion WUA support units will be further developed and supported by all three parties. Each WUA support unit comprises a water management specialist, a WUA development specialist, and an engineer. The WUA support units provide consultancy and formal training for all aspects of WUA formation, organizational development, financial planning, and water management.

36. The Government currently finances 70% of the operating costs of the oblast and raion WUA support units through the Department of Water Resources (DWR) budget and the OIP finances 30%. However, as of January 2007, the Government will finance 100% of the operating costs of the WUA support units and the units will be completely absorbed into the DWR. Under the World Bank-financed Water Management Improvement Project, support for training for WUA support units and WUAs will continue. ADB has agreed with the World Bank that the proposed Project will not provide any financing for the WUA support units in the Project area. Consideration may however, be given to providing financial support to replace furniture, equipment, and some vehicles, if necessary, during the course of implementation.

37. The Project will support the rehabilitation of irrigation and drainage infrastructure (output 3.2) for selected WUAs from the 27 WUAs identified in the shortlist and expects to rehabilitate about 17 WUAs serving about 28,500 ha of irrigated land. The Project will rehabilitate onfarm systems and, to a lesser extent, off-farm systems serving those WUAs. No more than 30% of funds for irrigation and drainage rehabilitation will be used for off-farm rehabilitation.

38. The implementation arrangements for irrigation and drainage rehabilitation will be the same as those for the AADP and the OIP, with minor adjustments to reflect lessons learned. These arrangements include assessing WUA milestones, preliminary rehabilitation designs, and estimates of financial and economic feasibility; having oblast rehabilitation teams (ORTs) prepare designs with support from a contracted design company for more difficult and complex infrastructure; and contracting construction civil works companies supervised by ORT engineers.

39. A joint assessment by the project management unit (PMU) will be conducted for each of the shortlisted WUAs in cooperation with the WUA support units to assess their suitability for inclusion in the Project and to identify any steps that the WUAs need to take. In addition to their adherence to qualification criteria, the assessment will involve a range of factors that may affect WUAs' capacity to manage a rehabilitated system. A plan will be agreed on with WUAs to resolve any outstanding issues that need to be addressed before their inclusion in the Project.

40. Decisions concerning priorities, works required, and scale of investments will lie largely with farmers, and the Project will be responsive to their needs. A series of meetings will be held for WUA members to ensure that they understand the proposals and timetable for rehabilitation and the financial implications of repayment obligations for individual members. Consultation with WUA members and management will continue throughout rehabilitation. The final design will focus on priority interventions to bring the system back to operational condition, but will not necessarily involve complete rehabilitation. However, the scale of rehabilitation will not be less than what is required to ensure that the proposed design is technically, financially, economically, and environmentally feasible. The final design will reflect more accurate estimates of works and costs and will be subject to stringent financial and economic analyses. The final design, costs, and expected timetable for construction will be discussed and agreed with WUA members, and a formal decision will be taken to proceed with the procurement of a civil works contractor to execute the agreed rehabilitation works.

41. The Project will use the staff of the ORTs, which consist of a design engineer, a construction engineer, and a draftsman, which are currently financed by the OIP, for regular design work and construction supervision. The OIP will finance these teams until the Project becomes effective, estimated to be in March 2007, at which time the Project will take over the financing. The Project will finance one additional design engineer for a minimum of 2 years to accommodate the extra design work activities and up to six university graduates to provide them with work experience. ADB has agreed with the World Bank that the position of regional engineer, currently financed by the OIP, will be jointly financed by the World Bank and ADB until May 2008, when the OIP is expected to be completed. After this date, the Project will fully finance this engineer, who will manage the Project's irrigation and drainage component. In addition, a design company or companies will be contracted to provide design support to the ORTs for the more difficult and complex aspects of design, and consideration will be given to using a framework agreement similar to that currently practiced under the OIP. Designs will be supervised by the Project. Final designs will be approved by WUA management following consultation with WUA members; the State Committee on Environmental Protection and Forestry to provide environmental clearance; and oblast technical committees, which will consist of Project staff, oblast DWR staff, WUA representatives, farmer representatives, and the company responsible for the design. In addition, an international irrigation and drainage engineer will undertake an external technical review of engineering designs prior to civil works tenders. This engineer will be part of the international consulting team and will conduct reviews of each design and submit comments for ADB consideration.

42. Construction will be contracted out to qualified companies. Construction supervision will be undertaken by the construction engineers in each ORT and supported by site supervisors, who will be permanently engaged for each construction site (one per site).

43. As under the AADP and the OIP, WUAs will be required to repay 25% of construction costs under a repayment agreement to be signed before construction contracts are signed and will generally finance this repayment through increased irrigation service fees (ISFs). Each WUA, with assistance from the raion WUA support unit, will be required to prepare a 7-year financial plan that includes projections for increased ISFs sufficient to cover the 25% repayment and improved operations and maintenance (O&M). The terms and conditions of agreements between WUAs and the MOEF include repayment of 25% of the costs of on-farm irrigation and drainage rehabilitation (construction costs only, not design costs) over a 7-year period from the date of completion of rehabilitation, with a 4-year grace period; interest charged on the amount to be repaid based on inflation; and the amount to be repaid defined in som. The WUAs will not bear any foreign exchange risk.

44. As under the AADP and the OIP, a technical credit will be made available to WUAs to purchase office furniture and equipment, vehicles, meters, concrete mixers, and machinery for O&M of the rehabilitated irrigation systems. The technical credit will be limited to \$40,000 per WUA, and 100% of the amount will be recovered through a repayment agreement between WUAs and the MOEF, similar to the repayment agreement for the rehabilitation of irrigation and drainage infrastructure.

#### **4. Land Improvement**

45. The Project will support a holistic and participatory approach to the sustainable use of pasture lands and the improvement of orchard management.

46. The enabling environment for pasture management at the national level is in need of reform, and the World Bank is currently undertaking a pilot project to develop legislation and administrative arrangements for pasture management and investment as a foundation for future investments in pasture development. The Project will collaborate with this and any future World Bank projects, but will not conduct specific activities aimed at reform at the national level. The Project will design and implement pasture land interventions within the existing policy and legal framework, concentrating its efforts at building local capacity for planning and management.

47. Regulation 360 dated 4 June 2002<sup>7</sup> establishes a set of procedures for pasture allocation based on written plans for the reallocation, use, and protection of pastures to be elaborated jointly by raion and village government officials (article 9). The aim is to specify overall use and management plans within oblasts, raions, or *aiyl okmotu* based on a quantitative assessment of available pasture areas and their forage productivity. In addition, plans are to be developed for pasture rotation, water, road access, and infrastructure needs. On the basis of these plans, competitive tenders are to be organized for livestock holders who wish to rent pasture land (article 10).

48. To support sustainable pasture land management (output 4.1), the Project will initially help prepare and implement pasture land management plans incorporating all three levels of pastures used by farmers from each village government. Communities will be mobilized to ensure effective participation (by both women and men) in pasture land planning and

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<sup>7</sup> This description of the main elements of the regulation is taken from Undeland, Asyl. 2005. Kyrgyz Livestock Study; Pasture Management and Use. World Bank. Bishkek. Unpublished report (November, p. 54).

management. The Project will explore options for establishing appropriate community organizational or representation mechanisms for ensuring that the interests of pasture land users are adequately represented in the planning process and subsequent plan implementation. For example, the Project may help livestock farmers manage their own pasture resources through the formation of pasture user associations or similar groups. Capacity development will be provided to *aiyl okmotu* and community-based user groups to support the planning and management of pasture lands.

49. Community-based pasture land management plans will be prepared for pastures serving farmers in selected *aiyl okmotu* during the first 3 years of the Project. Planning will be undertaken with the full participation of communities in (i) surveying the condition of pastures; (ii) undertaking socioeconomic surveys; (iii) preparing pasture boundary maps; (iv) preparing pasture improvement plans, including pasture infrastructure rehabilitation plans; and (v) developing pasture monitoring systems. The pasture land management plans will include expected impacts and outcomes, leasing and allocation schemes, pasture improvement plans, institutional arrangements (including monitoring and evaluation (M&E) systems), capacity development plans, budgets, and financial commitments.

50. Pasture land improvement plans will be implemented and monitored with community participation. Pasture improvements will include (i) pasture rotation schemes, (ii) investments to increase forage productivity through reseeding and weed control, and (iii) pasture infrastructure investments. Forage productivity improvements will be made through a combination of pasture rotation plans, revegetation of degraded pasture land, and enforcement of sustainable stocking rates for livestock. Village advisory services will provide improved skills training in livestock production and pasture management.

51. In consultation with the community-based pasture user groups, the Project will help *aiyl okmotu* develop investment plans and will support such plans for the first 4 years. After that time, the income generated from leasing access to pastures is expected to support plan implementation. The plans will cover phased repair and construction or reconstruction of crucial pasture infrastructure such as roads and tracks, bridges, handling facilities, and housing.

52. Both *aiyl okmotu* and pasture-user groups will be trained to improve their management and administration of pastures. *Aiyl okmotu* will receive revenues from the leasing of pastures and will be helped to set up proper administrative systems for managing these revenues and achieving transparency and accountability in handling them. The Project will also provide capacity development for managing grant funds for improving pasture land infrastructure. Such training will include financial management and M&E.

53. The Project will develop an effective monitoring system for pasture land use. The monitoring system will be based on animal production characteristics and vegetation and soil erosion criteria. It is anticipated that monitoring data will have to be collated and analyzed by one system under the Project. The pasture user groups operating in the village government pasture areas will be responsible for routine monitoring to collect data on the state of vegetation, pastures, livestock, and infrastructure. To this end, local service providers will assist and train the pasture user groups under contract to the *aiyl okmotu* during their first 4 years after establishment. Monitoring activities will be coordinated with the CACILM, which will be operating a sustainable land management information system to monitor changes in pasture land indicators as part of the monitoring of overall changes in land degradation in the Kyrgyz Republic.

54. The pasture land management activities will generate a number of lessons, and information will be gathered using the monitoring system. To ensure effective sharing of knowledge, the Project will develop a manual on sustainable pasture land management practices. The first version of the manual is expected to be produced within 2 years of project initiation, and it will be updated at least once as project activities generate new information. The advisory services will use this manual to train pasture users.

55. The Project will support improvements to orchard management (output 4.2) by (i) developing improvement plans, (ii) addressing legal restrictions, (iii) improving leasing arrangements, (iv) restocking orchards, and (v) training farmers.

56. The Project will help *aiyl okmotu* prepare orchard management plans to be completed within 3 years of Project effectiveness. Each plan will (i) identify all government agencies and their respective responsibilities with respect to the plan, (ii) include procedures for ensuring community participation in the planning process, (iii) establish systems and procedures for allocating orchards to farmers through lease arrangements in an equitable and transparent manner, (iv) include strategies for improving orchards, and (v) incorporate investment plans.

57. There is currently a moratorium on the felling of trees, which prevents the responsible felling of unproductive trees and restocking. The Project will work with *aiyl okmotu* and relevant government agencies to identify areas where responsible felling and restocking would increase orchard productivity and to examine possible systems and procedures for assessment, approval, and monitoring of applications for felling and restocking on a pilot basis.

58. The Project will assist *aiyl okmotu* to establish improved long-term agreements with farmers for leasing orchards and to encourage proper tree management. The *aiyl okmotu* will also contract private or forest farm nurseries to supply tree and shrub planting materials. *Aiyl okmotu* will also contract forest farms or individuals to plant new stock in orchards or other areas that need to be planted. *Aiyl okmotu* will contract individuals or advisory services to train farmers leasing those areas in tree crop management.

## 5. Project Management

59. Project management will be undertaken by a PMU. Most project activities will be conducted by contracting existing institutions to build up sustainable implementation capacity. The Project will also work collaboratively with other development partners to avoid duplication and minimize project management costs. Where national institutional capacity is limited or unavailable, international and national consulting services will be employed to strengthen technical capacity for selected activities and project management.

## 6. GEF Alternative

60. The **GEF-financed activities** (see section III.B.2) will be integrated into three out of five components: Farm Development, Land Improvement, and Project Management. The three sub-components added respectively to the above components are listed below:

*GEF Sub-component of Farm Development: Sustainable Land Management Advisory Services and Field Schools*

*GEF Sub-component of Land Improvement: Community Based Pasture Land Planning, Mapping, and Monitoring*

*GEF Sub-component of Project Management: Monitoring and Evaluation of Project*

*Environmental Impacts*

**E. Key Indicators, Assumptions, and Risks**

61. Several quantitative indicators have been selected to measure progress and success of the project, including household incomes, agriculture value added, incidence of land degradation, areas of agriculturally productive arable, pasture land and orchards in the target area, soil erosion and salinity on target arable land, carrying capacity of pastures on target pasture lands, carbon storage per hectare, and agro-biodiversity. (See Appendix B for complete set of indicators and targets.)

62. The major assumption is that political and macro-economic stability will be maintained and that the central and local governments will remain and decentralization will persist. Other important assumptions are that farmers will shift from subsistence to increased commercial agriculture, and that farmers will use improved services and infrastructure and adopt improved farming practices. (See Appendix B for complete set of assumptions.) The major risks to the Project's success are that the implementation of macroeconomic policy reforms is slow to support agricultural sector reforms; and that the Kyrgyz Republic's reported problems with governance, transparency, and corruption may adversely affect project implementation and outcomes.

63. The design and monitoring framework (Annex B) sets out a comprehensive list of risks and assumptions for the Project. Essentially, the risks are associated with the degree to which the SAADP project would be effective in addressing the constraints, which if not appropriately addressed, could affect the expected project outcomes and impact. These constraints, which the project seeks to address through its proposed interventions, in the context primarily of the project scope and spatial coverage, are:

- The crop, livestock, and agro-industrial subsectors continue to experience substantial adjustments, and without effective project actions, would continue to under-perform.
- A functional land lease market exists, but the land sales market is largely inactive.
- In the Land Redistribution Fund, which consists of 25% of arable land that was not distributed, and are intended partly for allocation to the poorest members of society and those returning to the country after the land distribution process, there is room for greater transparency in the management of the fund by the *aiyl okmotu*.
- The current administration by three different levels of government, the monitoring of pasture use and pasture quality by the State Land Development Institute, and the existence of forest farms, which lease out pastures from the Forest Fund, make the current pasture administration and management system, and the leasing process too complicated.

64. It is expected that, with the proposed GEF Alternative, the above issues will be addressed more effectively through training and capacity building support with the help of international and national expertise. The ADB will also cooperate with the World Bank, which is looking into the question of legislative changes to pasture land management to reinforce the actions to be taken under the SAADP.

65. The Project is expected to significantly improve both the financial sustainability of target households as demonstrated by household cash flows and the environmental sustainability of the farming system. This will come about through crop diversification to include higher-value

crops, including forage crops, in a more balanced crop rotation (as far as possible within the constraints of small land plots). This will be brought about by improved pastures and more productive use of degraded lands as a result of investments in WUAs, advisory services, agribusinesses, *aiyl okmotu*, and pasture user groups, which are designed to bring about the financial sustainability of all these organizations as far as possible.

66. Past investment in WUA development aimed to establish sustainable WUAs that (i) have adequate skills to plan for O&M of rehabilitated systems, (ii) can generate sufficient income from ISFs to finance annual O&M and repayment of 25% of the cost of rehabilitation construction, and (iii) can allocate water more efficiently. However, there is a moderate risk that the collection of ISFs by the WUAs will be poor and that some WUAs may find it socially unacceptable to raise ISFs.

67. In their current form, the farm advisory services are highly dependent on finance from development partners and are not financially self-sustainable. The services are likely to be rationalized over the coming years, with a move away from training a large number of small farmers to training village advisers, that is, successful farmers who will eventually sell their services to other farmers as independent advisers or, in a limited number of cases, find employment as advisers with cooperatives or agribusinesses.

68. The pasture land management plans will include financial projections for each of the infrastructure investments to be financed under Project grants that show that these investments will be sufficient to cover the recurrent expenditures necessary for maintenance. Therefore the selection of investments based on the proper criteria, including financial sustainability, will be critical.

69. Other important risks include some that are beyond the control of the Project, such as political instability, macroeconomic shocks, commodity price shocks, and others that the Project can influence, such as corruption and a failure to recruit staff based on their skills rather than on personal connections. The problem of interference in staff recruitment is a major risk, and probably the key factor that will determine the Project's success or failure. The independence of the PMU and the MAWRPI in staff recruitment is critical and must be strictly enforced.

70. Overall, given the identified risks and associated mitigation measures, the Project is considered to be financially and economically viable and to have a high level of overall sustainability.

## **II. COUNTRY OWNERSHIP**

### **A. Country Eligibility**

71. The Kyrgyz Republic acceded to the United Nations Convention to Combat Desertification (UNCCD) on 19 September 1997.

### **B. Country Drivenness**

72. The project concept is consistent with the priorities of the Government as identified in the National Programming Framework (NPF) of the Central Asian Countries' Initiative for Land Management (CACILM). The responsibility for CACILM coordination and NPF oversight rests with a National Coordination Council (NCC). The NCC is chaired by the Minister of Agriculture, Water Resources and Processing Industry (MAWRPI), with the UNCCD Focal Point acting as

the CACILM coordinator and convener of the NCC. The NPF provides a national programming platform to guide actions and activities, both nationally and externally funded, to address land degradation issues. It includes a reform and investment program (National Program), which is intended to be the instruments which would help the Kyrgyz Republic to realize the goal to restore, sustain, and enhance the productive functions of the Kyrgyz Republic's land resources, restore the loss of productivity of the natural resource base, so as to improve economic and social well-being, and reduce poverty, of those who depend on these resources while preserving the biodiversity and resilience of the ecology and enhancing ecosystems stability and services. The ten-year rolling investment program is divided into three phases (2006–2008, 2009–2013, and 2014–2016) and comprises seven Program Areas, each representing a major thematic aspect of SLM. Individual investment projects (or programs or activities) are grouped into the Program Area according to the proximity of that project's dominant thrust to the thematic thrust of that Program Area. The seven Program Areas are: 1) Capacity Building (1a: to strengthen enabling environment, and 1b: to support integration into land use planning and management); 2) Sustainable Agriculture (2a: rainfed lands and 2b: irrigated crop lands); 3) Sustainable Forest and Woodland Management; 4) Sustainable Pastureland Management; 5) Targeted Research; 6) Integrated Resource Management; and 7) National Program Coordination and Management. The proposed SAADP has been identified as one of the priorities in the Integrated Resource Management Program Area, to be funded in Phase 1 and implemented over six years.

73. The process of developing the NPF used key existing national documents as a starting point, such as the National Action Plan to Combat Desertification (NAPCD) which was approved in December 2000, the Agrarian Policy Concept of the Kyrgyz Republic to 2010, the National Forest Programme (2005–2015), the Strategy and Action Plan for Development of Mountain Territories and the Kyrgyz National Poverty Reduction Strategy (NPRS).

### **III. GEF PROGRAM AND POLICY CONFORMITY**

#### **A. Conformity with GEF Operational Program and Strategic Priorities**

74. The SAADP is consistent with the strategic objectives of GEF Operational Program 15 (OP#15) on Sustainable Land Management (SLM) under the Land Degradation focal area. In particular, the project addresses Strategic Objective 2: "To generate mutual benefits for the global environment and local livelihoods through the upscaling of SLM investments". In particular, the project aims at demonstration and up-scaling of sustainable pastures land management practices, sustainable land-use planning and environment impact monitoring systems. The project also would disseminate knowledge generated by project interventions for their wider sharing and replication for the control of land degradation and desertification, and for promoting sustainable livelihoods of the rural populations through uptake of conservation friendly and sustainable land management practices.

#### **B. Benefits from GEF Support**

##### **1. Without GEF Scenario**

75. The baseline scenario is one where the Government working on its own and/or with donor support is gradually removing the obstacles to stagnating agricultural production and is having some success in restoring the ecological functioning of irrigated lands and pasture lands. Under that scenario, advances are made on a number of fronts (against a large number of underlying problems) but the advances stop short of realizing the decisive environmental

improvement that, in the Kyrgyz Republic, demands the adoption of improved farm practices on a sufficiently wide scale in order to realize environmental benefits also at landscape, ecosystem and global levels.

76. Without GEF, the ADB financing will focus on increased productivity and profitability of farms. The potential project components being considered are: (i) farm development, in terms of assisting farms and businesses to operate on a commercially viable basis and adapting appropriate farm land and water management practices; (ii) infrastructure rehabilitation including drainage and irrigation, and market infrastructure; (iii) development of private sector services, through supporting the establishment or expansion of agribusiness services from input supply to marketing; and (iv) establishment of project management and monitoring systems.

77. These farm level improvements as well as increased linkages to markets are expected to increase farmers' incentives to invest in their farms and to improve the management of their land. However, reversing land degradation trends on a larger scale beyond individual farms and in a sustainable manner will require additional investments in raising capacity to improve the policy and institutional environment, especially in mainstreaming sustainable land management into upstream development policy as well as into implementation by local governments and local communities, developing local communities' stewardship of land resources, piloting innovative environmentally sound farming techniques and most importantly, to upscale the gains in land improvement beyond the project area and if possible, to an ecosystem level.

78. The baseline scenario is one where the project will rehabilitate irrigation and drainage systems on 29,500 ha and establish financially sustainable WUAs to manage onfarm systems and federations of WUA to manage off-farm systems. The efficiency of water allocation by the WUA will improve, the quality of water discharged from the irrigation system will improve, soil salinity and water-logging will be reduced, and social tensions relating to access to irrigation water will be eased. Investments in farm advisory services will lead to more farmers with access to advisory services in the short-term, and in the long term, more high quality trainers and village advisors being available to increase outreach of the advisory services further. However, in the baseline scenario there will be limited investment in broadening the technical scope of the advisory services beyond their current enterprise specific training to address sustainable land and water management topics and the advisory services will not reach their full potential outreach, increasing outreach by only half the amount that which would be possible with GEF financing. Improved contract farming arrangements with buyers, better access to credit and inputs and investment in agribusiness, including storage and processing facilities, will create a larger market for farmers, increase cash incomes and allow a partial shift away from subsistence farming which is characterized by poor land management practices such as monocropping, the absence of integrated crop management, and low investment in a poorly maintained irrigation and drainage system.

79. The capacity of local government and community for natural resource management (NRM), specifically management and leasing of those lands under the control of the *aiyl okmatu*, rayon (i.e. district) administrations, oblast (i.e. region) administrations and leskhoz (i.e. forest farms) including pastures, orchards, the forest fund and the land reallocation fund (25% of arable land) will be improved and natural resource management plans will be prepared for each *aiyl okmatu* but under the baseline scenario these plans will be rather narrower in scope than would be possible with the guidance and training from the international consultancy to be financed by GEF. Institutional arrangements for pasture leasing will be improved and infrastructure critical to ensure access to pastures will be rehabilitated but under the baseline scenario limited local capacity for pasture mapping, monitoring and management by users will

limit achievement of the full potential of the pastures. In short, the potential benefits of improved irrigated land and pastures will be improved but not to the extent possible with GEF financing.

## 2. GEF Alternative

80. The GEF alternative would provide the needed support to the implementation of the current NAP. The GEF incremental cofinancing would enable the Government to implement elements of the NPF on integrated resource management, and to promote a more holistic and coordinated approach to land management, strengthening farm-level improvements in sustainable land management to eventually have an impact on the ecosystem level. This will entail an incremental and sequential approach with realistic expectations of achievements. The GEF alternative also provides more opportunities in terms of coordination and cooperation among the development community and government agencies at all levels through adherence to the common understanding of priorities as identified under the NPF prepared as part of the CACILM process.

81. The GEF alternative would support activities centered on the strategic priorities of the GEF sustainable land management operational program, in terms of capacity building (in terms of mainstreaming of sustainable management practices and priorities into rural development and agricultural planning processes) and the implementation of innovative sustainable land management practices. It will also assist with strengthening the partnership approach amongst agencies involved in sustainable land management activities

82. The GEF financed component will focus on the creation of additional local capacity to deliver the global benefits listed above, and on introducing novel land rehabilitation activities that promise to have wide-ranging environmental benefits. Specifically, the GEF grant will include: (i) introduction of and demonstration of novel and improved land management techniques to supplement traditional practices, (ii) new and enhanced capacity building and institutional strengthening for mainstreaming sustainable land management and integration of land-use planning systems; (iii) promotion of up-scaling and replicability of Project results for wider implementation, and (iv) development and implementation of meaningful indicators and monitoring and evaluation systems.

83. As noted, GEF-financed activities will be integrated into three out of five project components covering: Farm Development, Land Improvement, and Project Management.

84. Added to Component 1 of the Baseline (Farm Development), will be

*Sub-component A: Sustainable Land Management Advisory Services and Field Schools*

85. This subcomponent will expand the technical scope of the advisory services beyond the enterprise specific training which they currently provide to address sustainable land management issues as soil conservation, improved efficiency of water management and pasture management, It will allow the replication and scaling up of field schools which will develop a cadre of trainers with skills which include integrated pest management, integrated crop management and fruit tree management.

86. Added to Component 4 of the Baseline Project (Land Improvement)

*Sub-component B: Community Based Pasture Land Planning, Mapping, and Monitoring*

87. This subcomponent will provide technical assistance to support the preparation of community based pasture land management plans in each of the project *aiyl okmatu*. In addition, this subcomponent will build local capacity (at the level of the *aiyl okmatu*, pasture user and livestock committee) in pasture mapping, monitoring and management which will be critical for the implementation of the communities pasture land management plans;

88. Added to Component 5 of the Project (Project Management and Performance Monitoring) will be:

*Subcomponent C: Monitoring and Evaluation of Project Environmental impacts*

89. This subcomponent will provide for a more comprehensive Project management in which a common set of indicators will be used to monitor and evaluate such variables as the nature and status of land degradation, carbon sequestration; biodiversity; on- and off-site environmental impacts, salinization, pollution and eutrophication; and socio-economic-factors. It will (1) develop a system for monitoring of the Project's environmental impacts; (2) develop a proposal for a unified salinity management database in the Kyrgyz Republic; and (3) mainstream the most suitable international practices of participatory monitoring of environmental impacts.

90. The work plan to complete these activities is presented in Annex E.

### **3. Expected Global Benefits from GEF Alternative**

91. The Farm Development Sub-component will expand the technical scope of the advisory services, beyond the enterprise specific training, to address sustainable land management issues as soil conservation, improved efficiency of water management, and pasture management; allow the replication and scaling up of field schools which will develop a cadre of trainers with skills which include integrated pest management, integrated crop management, and fruit tree management. The main global benefit of the Land Improvement Sub-component will be the greater ability of the Kyrgyz Republic's pasture land management institutions to share experience in introducing SLM activities that have significant positive global environmental impacts and improved ability to communicate with national and international stakeholders and galvanize opinion in favor of protecting the global environmental commons. Improved knowledge by the global community of the incidence of land degradation in arid ecosystems of Central Asia and the effectiveness of countervailing measures is seen as the principal global benefit of the Project Management Sub-component.

### **C. Sustainability**

92. The project is expected to be financially, technically and institutionally sustainable. Preparatory work during the design of SAADP will explore several project alternatives, and will analyze the project from the financial and economic viability and financial sustainability aspects. The proposed activities of the project will support capacity building of local governments and communities and stimulate and encourage the development of the private sector, which will contribute to improving the enabling environment in which land improvement and agriculture and rural development can take place in an integrated manner, hence contributing to further sustainability. The project will promote partnerships as a key approach to project implementation. In addition, the farm development and private sector marketing and input supply services components will assist farms and businesses to operate on a commercially viable basis and the project will work with farmers and entrepreneurs to meet requirements of

financial intermediaries in the Kyrgyz Republic to access the appropriate working capital and investment loans. This will contribute towards the financial sustainability aspects of the project.

#### **D. Replicability**

93. SAADP will envisage a replication strategy to expand the project scope beyond the three regions in the south of the country including increased efforts on sustainable land management. MAWRPI is contemplating another area-based project. The proposed project will establish a rigorous monitoring and evaluation system that will capture and analyze knowledge and lessons learnt from the SAADP project regions so that this information may benefit other regions. The support to institutional capacity building in terms of mainstreaming sustainable land management priorities into rural and agricultural development will culminate in benefits that will not only be restricted to the project area.

#### **E. Stakeholder Involvement / Intended Beneficiaries**

94. The project was developed through a wide participatory process. The participatory process for project preparation was facilitated through regional technical assistance on participatory approaches. Two regional workshops and one national workshop were held for about 137 participants, of which 27% were women. The participants consisted of representatives of the central Government, local governments, farming households, and development partners; members of cooperatives and water user associations (WUAs); staff of credit unions and nongovernment organizations (NGOs); and owners of agro-enterprises. The workshops discussed the Kyrgyz Republic's experience with participatory approaches and made recommendations to be considered in designing the Project. For project implementation, a stakeholder participation plan has been prepared (Annex F Stakeholder Participation Plan)

#### **F. Monitoring and Evaluation**

95. The Project will be monitored and evaluated in two ways. First, as an ADB project, it will be subject to the standard monitoring and evaluation (M&E) procedures of the principal lender, with most of its elements carried out jointly with the Government. Second, as part of the National Program developed under CACILM, the Project's M&E provisions will be integrated with the M&E provisions of the CACILM national and multicountry activities. In addition, the Project will prepare reports required by GEF such as the annual Project Implementation Report (PIR) and will respond to monitoring and evaluation studies that will be conducted by the GEF Secretariat and the GEF Evaluation Office. The M&E plan for the project is described in Annex D.

96. ADB's standard monitoring procedures include financial and work progress monitoring, monitoring of compliance with environmental and social safeguards, and monitoring of performance. The Government and ADB will review implementation of the Project at least once a year. After 3 years of implementation, the Government and ADB will jointly carry out a midterm review of the Project, to identify any problems or constraints encountered and assess the need for modification of project scope, implementation and financing arrangements. Project objectives will be measured against the performance criteria listed in Annex B. The parameters for assessing the implementation milestones will include (i) implementation status, (ii) design and construction standards, (iii) physical progress and disbursements related to the implementation schedule, (iv) status of compliance with loan covenants, (v) achievement of the Project's development objectives, (vi) progress of policy reforms, and (vii) the need for any changes in the project scope to achieve project impact. On completion, the Project will be

evaluated according to a schedule and terms of reference to be agreed upon by the Government and ADB.

97. Under the CACILM Multicountry Partnership Framework, the performance of NPFs and their project components is furthermore monitored at a country-partnership (regional) level to generate a picture of the effectiveness of the CACILM program at that level. Secondly, at the same multicountry level, a mechanism has been created to facilitate the monitoring and evaluation of all GEF-cofinanced components of the National Programs. Besides communicating with GEF on all matters relating to GEF-cofinanced components, CACILM Secretariat will ensure that the formats of SAADP M&E are fully compatible with those of GEF.

#### **IV. FINANCIAL MODALITIES AND COST EFFECTIVENESS**

##### **A. Financing Plan and Cofinancing Sources**

98. A GEF grant of approximately US\$2.5 million is being requested to finance the project. This project is part of the CACILM Multicountry Partnership Framework (CMPF). It has been approved by the CACILM Task Force for funding from the CACILM GEF 3 allocation.

99. The requested GEF grant will be incremental funding to SAADP activities to cover global sustainable land management benefits, over and above the baseline focus on essentially area-based impact. Cofinancing for the baseline activities, will be through an ADB loan of approximately US\$15.00 million, an ADF IX grant of \$5.00 million, and Government contributions and beneficiary contributions (estimated at US\$8.70 million, including contributions in kind). Financing for the preparation of SAADP, during which the GEF components were also designed, is as follows: ADB Technical Assistance funding from the Japan Special Fund (US\$0.70 million) and Government (US\$0.20 million).

100. The financing plan by main components was set out in Table 1. Cofinancing sources for proposed GEF grant have been fully firmed up and are given in Table 2 below. Estimated costs of activities to be financed by GEF grant are given in Table 3.

**Table 1. Project Costs and Financing (US\$ 000)**

Component	ADB Loan	ADB Grant	Government	WUAs	GEF	Total
1. Farm Development	2,017	1,348	314		871	4,550
2. Agribusiness Development and Marketing	3,876	83	375			4,334
3. Drainage and Irrigation	7,236	535	5,505	1,916		15,192
4. Land Improvement	--	1,454	377		1147	2,978
5. Project Management	1,350	1,580	246		482	3,659
Total Project Costs	14,479	5,000	6,818		2,500	30,713
Interest during implementation	521		-		--	521
<b>Total</b>	<b>15,000</b>	<b>5,000</b>	<b>6,818</b>	<b>1,916</b>	<b>2,500</b>	<b>31,234</b>

**Table 2: Cofinancing Sources**

Cofinancing source	Classification	Type	Amount (US\$ 000)	Status
Government of the Kyrgyz Republic	Government	Taxes & duties WUA Support Unit costs OM costs of irrigation and drainage	6,818	<i>Commitment agreed by Government</i>
ADB	Executing Agency	Loan from ADF resources	15,000	<i>Approved</i>
ADB	Executing Agency	ADF IX Grant	5,000	<i>Approved</i>
Water Users Associations	Beneficiaries	Towards O&M costs	1,916	<i>Willingness to contribute confirmed during project formulation</i>
<b>Total</b>			<b>28,734</b>	

**Table 3: Estimated Cost of Activities financed by GEF Grant (US \$)**

Component 1: Farm Development	871, 000
Sub-Component A: Sustainable Land Management Advisory Services and Field Schools	
Component 4: Land Improvement	1,147,000
Sub-Component B: Community Pasture Land Management Planning, Mapping, and Monitoring	
Component 5: Project Management	482,000
Sub- Component C: Monitoring and Evaluation of Environmental Impacts	
<b>Total Costs</b>	<b>2,500,000</b>

## **B. Incremental Cost Analysis**

### **1. Global Benefits**

101. Under the GEF alternative, the design has been considerably reinforced with the integration of three additional sub-components. They not only reinforce at the local sub-national levels but also generate benefits at the regional and global levels through processes of up-scaling and replication, sharing of experience based on successful institutional and community-based models and best practices, and more systemic generation, management, and dissemination of knowledge through the CACILM Multicountry Partnership Framework.

102. The incremental global environmental benefits potentially available are of several kinds, partly interrelated. The interface between the SLM Advisory Services and Field Schools and the rural communities, including women, is expected to generate models and participatory mechanisms for wider dissemination on a regional and global scale, in areas such as cost effective service delivery, community demand-driven feedback, and induction of farmers through training to become service providers. On the ground investments will promote adoption of conservation agriculture, protection of biodiversity, revegetation of degraded lands, carbon sequestration, even as by-products of investments aimed at raising farm productivity through SLM practices and efficient water use management. More sustainable use of pasturelands is expected to improve ecological functioning of pastureland and associated rainfed ecosystems beyond the immediate project area and improved knowledge of SLM practices applicable elsewhere. Improved pastureland management will protect and enhance landscapes and ecosystems of global cultural importance. Improvements in the capability of Kyrgyz Republic's pasture land management institutions in SLM activities is expected to generate new best practices for dissemination, which may ultimately generate global environmental impacts. The mainstreaming of the most suitable practices of participatory monitoring of environmental impacts and associated development of meaningful indicators and monitoring and evaluation systems will add value by contributing to the development of information systems, including analysis of lessons learnt that can be used for decision making, and disseminated in line with up-scaling and replicating project results.

### **2. Incremental Costs**

103. An analysis of the incremental costs for the GEF alternative is provided in Annex A. The GEF alternative would build on and strengthen the baseline scenario by covering the incremental costs associated with the following:

#### **(1) *Sustainable Land Management Advisory Services and Field Schools***

104. This subcomponent will expand the technical scope of the advisory services beyond the enterprise specific training which they currently provide to address sustainable land management issues as soil conservation, improved efficiency of water management and pasture management. It will allow the replication and scaling up of field schools which will develop a cadre of trainers with skills which include integrated pest management, integrated crop management, and fruit tree management.

(2) *Community Based Pasture Land Planning, Mapping, and Monitoring*

105. This subcomponent will provide technical assistance to support the preparation of community based pasture land management plans in each of the project *aiyl okmatu*. In addition, this subcomponent will build local capacity (at the level of the *aiyl okmatu*, pasture user and livestock committee) in pasture mapping, monitoring and management which will be critical for the implementation of the communities pasture land management plans;

(3) *Monitoring and Evaluation of Project Environmental impacts*

106. This subcomponent will provide for a more comprehensive project management in which a common set of indicators will be used to monitor and evaluate such variables as the nature and status of land degradation, carbon sequestration; biodiversity; on- and off-site environmental impacts, salinization, pollution and eutrophication; and socio-economic-factors. It will (1) develop a system for monitoring of the Project's environmental impacts; (2) develop a proposal for a unified salinity management database in the Kyrgyz Republic; and (3) mainstream the most suitable international practices of participatory monitoring of environmental impacts.

### **C. Cost Effectiveness**

107. The Project builds upon the previous experience in the Kyrgyz Republic and the design internalizes lessons about making the project implementation process more cost effective. First, the Project has had access to the best of international experience to avoid any design over-specification. A second element of cost effectiveness is the requirement of preparation of carefully worked out management plans based on a set of specific criteria or guidelines which would ensure cost efficient use of project investment resources. As an example, the Project will help *aiyl okmotu* develop investment plans, in consultation with the community-based pasture user groups, and will support such plans for the first 4 years. After that time, the income generated from leasing access to pastures is expected to support plan implementation. A third element of cost effectiveness is the emphasis on making service providers, i.e. village advisory services, financially self sufficient over time, reducing their dependence on project resources.

108. The project will help local institutions to implement regulations about rational of natural resources which would ensure a more systemic approach to cost effectiveness. For instance, Regulation 360 dated 4 June 2002 establishes a set of procedures for pasture allocation based on written plans for the reallocation, use, and protection of pastures to be elaborated jointly by raion and village government officials (article 9). The aim is to specify overall use and management plans within oblasts, raions, or *aiyl okmotu* based on a quantitative assessment of available pasture areas and their forage productivity. In addition, plans are to be developed for pasture rotation, water, road access, and infrastructure needs. On the basis of these plans, competitive tenders are to be organized for livestock holders who wish to rent pasture land (article 10).

## **V. INSTITUTIONAL COORDINATION AND SUPPORT**

### **A. Core Commitments and Linkages**

109. The proposed project is consistent with the ADB Country Strategy Program (CSP) 2004–2006 for the Kyrgyz Republic, of which the overall objective is to reduce poverty. The CSP

states that ADB will contribute to private sector-led growth by supporting three areas, the first being in the area of agricultural and rural development, to induce further productivity and to expand exports, second, the financial sector, and third, through regional cooperation. Based on the country environmental analysis, the CSP identified several priority areas of environmental management, which include land resources management. The CSP also recommends that mainstreaming of environmental considerations into ADB's operations constitute an important element of future activities. The most recent CSP Update (CSPU) for the Kyrgyz Republic (2006–2008), noted ADB has given continued support for strengthening environmental management through three TAs and has also provided support for sustainable mountain development. Furthermore, SAADP benefits from the experience of the AADP, and an extensive review of the lessons and how they may apply to improve the design and implementation of SAADP has been undertaken.

## **B. Consultation, Coordination, and Collaboration among IAs and ExAs**

110. CACILM itself is built on the principles of partnership, inclusiveness and transparency, and the level of collaboration achieved to date establishes a solid foundation for this proposed project. Building on the strong foundation established through the SPA, the CACILM Partnership will actively seek to include all interested GEF Implementing and Executing Agencies and to maintain close coordination with both the UNCCD and GEF Secretariats. The preparation of the NPF was done in this mode of partnership and hence should reduce the risks of duplication of effort.

111. As the design of SAADP is refined, opportunities for further on the ground collaboration with other GEF implementing and executing agencies will be explored, for example, with the World Bank Water Management Improvement Project, a five year project, of which the four components are: (i) rehabilitation and modernization of irrigation infrastructure; (ii) management of resources; (iii) organization of beneficiaries; and (iv) project management.

## **C. Project Implementation Arrangements**

112. The project will draw heavily on the management structure that will be established for the SAADP, so as to promote an efficient, integrated, and coherent approach to project management. The executing agency for the project will be the Ministry of Agriculture, Water Resources, and Processing Industry (MAWRPI) and a Project Implementation Unit will be established in that ministry. Implementation agency arrangements in the project regions will be developed in further detail and confirmed during the SAADP project preparation. ADB will be the GEF executing agency for the GEF component.

113. The project is part of the Kyrgyz Republic National Programming Framework and will be coordinated by the National Coordination Council through the Kyrgyz Republic National Secretariat. As the project is part of the CACILM Multicountry Partnership Framework (CMPF), it comes under the CACILM Steering Committee and will be coordinated through the CACILM Multicountry Secretariat.

## **List of Annexes**

- A Incremental Cost Analysis under GEF Alternative
- B Design and Monitoring Framework
- C Estimated Costs
- D Monitoring & Evaluation Plan
- E Work Plan
- F Stakeholder Participation Plan
- G.1 Country Map
- G.2 Project Area Map
- H Consultant Terms of Reference
- I ADB SAADP Project Report and Recommendations to the President
- J Letters of Endorsement (GEF Operational Focal Point and UNCCD National Focal Point)

### Annex A: Incremental cost of the Project under the GEF alternative

Baseline	GEF Alternative <i>(elements of design generating global benefits in italics)</i>	Domestic benefits of enhanced ("GEF") alternative	Global benefits of GEF alternative	Incremental cost of GEF alternative (US\$)
Main features of Project baseline and the alternative design				
Project Component				
<p><b>1: Farm Development.</b></p>	<p>1.1 Baseline activity of technology development to promote SLM through:</p> <ul style="list-style-type: none"> <li>(i) increased quality and outreach of village advisory services;</li> <li>(ii) development of quality training materials; and</li> <li>(iii) field schools to enhance skills of farmers</li> </ul> <p>The GEF alternative will assist with considerably expanding the depth and outreach of the above capacity building activities.</p> <p>With GEF alternative, a Sub-Component A will be added to the baseline activities of Component 1 - Farm Development.</p> <p><i>Sub-component A will: expand the technical scope of the advisory services beyond the enterprise specific training which they currently provide to address sustainable land management issues as soil conservation, improved efficiency of water</i></p>	<p>The GEF financed component will focus on the creation of additional local capacity to deliver the global benefits listed in col.4, and on introducing novel land rehabilitation activities that promise to have wide-ranging environmental benefits. Specifically, the GEF grant will: (i) introduction of and demonstration of novel and improved land management techniques to supplement traditional practices, (ii) new and enhanced capacity building and institutional strengthening for mainstreaming sustainable land management and integration of land-use planning systems; (iii) promotion of up-scaling and replicability of Project results for wider implementation, and (iv) development and implementation of meaningful indicators and monitoring and evaluation systems.</p>	<p>Under Sub-component A, the global benefits include the social and global environmental benefits of future investments in SLM in Kyrgyz Republic and in the region that more reliably target such environmental benefits while delivering local livelihood improvements.</p> <p>The incremental global environmental benefits potentially available are of several kinds, partly inter-related: (1) improved ecological functioning of the irrigated and rainfed ecosystem(s) beyond the immediate project area, made possible by intensifying or supplementing certain project activities; (2) revival of Central Asia's agricultural and cultural heritage (including conservation of agrobiodiversity) as indigenous know-how is combined with international advances in irrigated and rainfed agriculture; and (3) reduction of GHG emissions and additional carbon sequestration through a more appropriate management of biomass and deliberate</p>	<p><i>Cost of the additional measures to enhance ability to formulate and support investments that generate global benefits (column 2)</i></p> <p style="text-align: center;"><b>\$871,000</b></p>

	<i>management and pasture management; b) allow the replication and scaling up of field schools which will develop a cadre of trainers with skills which include integrated pest management, integrated crop management and fruit tree management</i>		attention to capturing the underlying potential in this domain .	
<b>2. Agribusiness Development and Marketing</b>	The component is not covered by the GEF Alternative support. Though highly useful from the viewpoint of the national economy, the component does not have any direct spillovers in terms of global environmental benefits.			
<b>3. Irrigation &amp; Drainage</b>	This component is not covered by the GEF Alternative support.  However, investments in this component (strengthening of Water Users Associations' management of water resources and improving their financial viability) are important in the local and regional context. Even though focus is on certain selected WUAs, their outcomes would have some indirect cross-border benefits.			
<b>4. Land Improvement</b>	<i>The baseline activities of the component will design and implement pasture land interventions within the existing policy and legal framework, concentrating its</i>	With GEF alternative:  (i) capacity for identifying remedial actions to address policy, legislative and institutional barriers to sustainable pasture	Under Sub-component B, the global benefits include (1) reduced salt and pollutant runoff in parts of the Project area resulting in improvement of surface and groundwater quality	

	<p><i>effort at building local capacity for planning and management, collaborating with the World Bank's ongoing and planned operations.</i></p> <p><i>With the GEF Alternative a new Sub-component B will be grafted on the component 4.</i></p> <p><i>Sub-Component B will provide additional international technical assistance to support the preparation of community based pasture land management plans in each of the project AO; d) build local capacity (at the level of the AO, pasture user and livestock committee) in pasture mapping, monitoring and management which will be critical for the implementation of the communities pasture land management plans, thus contributing significantly to sustainable pasture land management.</i></p>	<p>development are enhanced.</p> <p>(ii) Pasture land information system development and surveys, including Socioeconomic surveys, geobotanical surveys, pasture infrastructure surveys, remote sensing satellite imagery, and GIS system development.</p> <p>(iii) Preparation and implementation of annual pasture management and investment plan.</p> <p>(iv) The capacity of local government and community for management and leasing of lands under the control of the aiyl okmatu (AO), raion and oblast administrations will be improved and NRM plans will be prepared for each AO but under the baseline scenario these plans will be rather narrower in scope than would be possible with the guidance and training from the international consultancy to be financed by GEF.</p> <p>(v) Design, production and dissemination of pasture land best practices.</p>	<p>in key transboundary river basins, and (2) enhanced landscapes and ecosystems in areas of global cultural importance</p> <p>(i)The enhanced ability of Kyrgyz Republic's pasture land management institutions to share experience in introducing SLM activities that have significant positive global environmental impacts;</p> <p>(ii) Improved ability to communicate with national and international stakeholders and galvanize opinion in favor of protecting the global environmental commons;</p>	<p><i>Cost of the additional measures to enhance ability to formulate and support investments that generate global benefits (column 2)</i></p> <p><b>\$ 1,147,000.</b></p>
<p><b>5. Project Management</b></p>	<p>The baseline outcome of improved Project Management would be the operational and strengthened project management and monitoring systems.</p> <p>With the GEF Alternative, a Sub-component C will be grafted to the Component 5.</p>	<p>Improved knowledge of environmental impacts and resulting ability better to calibrate SLM investments.</p> <p>Inclusion of a common set of indicators in the Project's M&amp;E system to monitor environmental variables of local and global relevance.</p> <p>Design of a unified land</p>	<p>Improved knowledge by the global community of the incidence of land degradation in arid ecosystems of Central Asia and the effectiveness of countervailing measures.</p> <p>Mainstreaming the most suitable practices of participatory monitoring of</p>	<p><i>Cost of the additional measures to enhance ability to formulate and support investments that generate global benefits (column 2)</i></p> <p><b>\$ 482,000.</b></p>

	<p><i>The Sub-component C will focus on the "Monitoring and evaluation of Project environmental impacts.</i></p> <p><i>The Alternative will provide for a more comprehensive Project management in which a common set of indicators will be used to monitor and evaluate such variables as the nature and status of land degradation, carbon sequestration; biodiversity; on- and off-site environmental impacts, biodrain siltation, salinization, pollution and eutrophication; and socio-economic-factors.</i></p> <p><i>The Alternative will (1) develop a system for monitoring of the Project's environmental impacts; (2) develop a proposal for a unified salinity management database in Kyrgyz Republic, and (3) mainstream the most suitable international practices of participatory monitoring of environmental impacts.</i></p>	<p>degradation and desertification monitoring database in Kyrgyz Republic.</p>	<p>environmental impacts.</p>	
			<p><b>Total incremental cost:</b></p>	<p><b>\$2,500, 000.</b></p>

## Annex B: DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/ Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks																																																																																
<p><b>Impact</b> Region wide adoption in Batken, Jalalabad and Osh, of the improved agricultural, orchard and pasture management techniques introduced</p>	<p>Household incomes increase by 30%.</p> <p>Agriculture value added increased by 5% per annum.</p> <p>Incidence of land degradation maintained or reduced.</p>	<p>Regional statistics</p> <p>Government reports</p> <p>CACILM annual reports</p>	<p><b>Assumptions</b> Political and macro economic situation stable.</p> <p>Relative input / output commodity prices stable. Government commitment to SLM is mainstreamed</p> <p><b>Risk</b> The gradual implementation of macro-economic policy reforms is slow to support agricultural sector reforms</p>																																																																																
<p><b>Outcomes</b> Sustainable increase in land productivity and profitability</p>	<p>Yields on target farms increases as follows:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2"></th> <th colspan="3" style="text-align: center;">Irrigated</th> </tr> <tr> <th></th> <th style="text-align: center;">Unit</th> <th style="text-align: center;">Without</th> <th style="text-align: center;">With</th> <th style="text-align: center;">% change</th> </tr> </thead> <tbody> <tr> <td><b>Wheat</b></td> <td style="text-align: center;">T/ha</td> <td style="text-align: center;">2.6</td> <td style="text-align: center;">4.4</td> <td style="text-align: center;">25</td> </tr> <tr> <td><b>Maize</b></td> <td style="text-align: center;">T/ha</td> <td style="text-align: center;">4.3</td> <td style="text-align: center;">6.3</td> <td style="text-align: center;">25</td> </tr> <tr> <td><b>Sunflower</b></td> <td style="text-align: center;">T/ha</td> <td style="text-align: center;">1.3</td> <td style="text-align: center;">1.9</td> <td style="text-align: center;">25</td> </tr> <tr> <td><b>Cotton</b></td> <td style="text-align: center;">T/ha</td> <td style="text-align: center;">1.8</td> <td style="text-align: center;">3.8</td> <td style="text-align: center;">25</td> </tr> <tr> <td><b>Tomato</b></td> <td style="text-align: center;">T/ha</td> <td style="text-align: center;">33.0</td> <td style="text-align: center;">41.3</td> <td style="text-align: center;">25</td> </tr> <tr> <td><b>Lucerne Hay</b></td> <td style="text-align: center;">T/ha</td> <td style="text-align: center;">10.0</td> <td style="text-align: center;">12.0</td> <td style="text-align: center;">0</td> </tr> <tr> <td><b>Milk (lactation cows)</b></td> <td style="text-align: center;">L/lactation</td> <td></td> <td style="text-align: center;">1,893</td> <td style="text-align: center;">37</td> </tr> <tr> <td><b>Apricots, dried</b></td> <td style="text-align: center;">T/ha</td> <td style="text-align: center;">5.5</td> <td style="text-align: center;">6.0</td> <td style="text-align: center;">20</td> </tr> <tr> <td><b>Apples</b></td> <td style="text-align: center;">T/ha</td> <td style="text-align: center;">2.0</td> <td style="text-align: center;">22.0</td> <td style="text-align: center;">10</td> </tr> <tr> <th colspan="2"></th> <th colspan="3" style="text-align: center;">Rainfed</th> </tr> <tr> <th></th> <th style="text-align: center;">Unit</th> <th style="text-align: center;">Without</th> <th style="text-align: center;">With</th> <th style="text-align: center;">% change</th> </tr> <tr> <td><b>Wheat</b></td> <td style="text-align: center;">T/ha</td> <td style="text-align: center;">1.5</td> <td style="text-align: center;">1.9</td> <td style="text-align: center;">25</td> </tr> <tr> <td><b>Sunflower</b></td> <td style="text-align: center;">T/ha</td> <td style="text-align: center;">0.8</td> <td style="text-align: center;">0.9</td> <td style="text-align: center;">10</td> </tr> <tr> <td><b>Lucerne</b></td> <td style="text-align: center;">T/ha</td> <td style="text-align: center;">6.0</td> <td style="text-align: center;">6.6</td> <td style="text-align: center;">10</td> </tr> </tbody> </table> <p>Gross margins increase about 40% from about \$512 to \$720 per hectare.</p> <p>Cash margin of target farms increases about 30% from \$314 to \$400 per 4 hectare.</p> <p>75% of targeted farms and agribusinesses adopt new techniques and practices.</p>			Irrigated				Unit	Without	With	% change	<b>Wheat</b>	T/ha	2.6	4.4	25	<b>Maize</b>	T/ha	4.3	6.3	25	<b>Sunflower</b>	T/ha	1.3	1.9	25	<b>Cotton</b>	T/ha	1.8	3.8	25	<b>Tomato</b>	T/ha	33.0	41.3	25	<b>Lucerne Hay</b>	T/ha	10.0	12.0	0	<b>Milk (lactation cows)</b>	L/lactation		1,893	37	<b>Apricots, dried</b>	T/ha	5.5	6.0	20	<b>Apples</b>	T/ha	2.0	22.0	10			Rainfed				Unit	Without	With	% change	<b>Wheat</b>	T/ha	1.5	1.9	25	<b>Sunflower</b>	T/ha	0.8	0.9	10	<b>Lucerne</b>	T/ha	6.0	6.6	10	<p>Annual Project Farm Survey</p> <p>Provincial and district statistics on crop areas, yields and production</p> <p>DAWR reports</p>	<p><b>Assumption</b> Farmers shift from subsistence to increased commercial agriculture.</p> <p>Farmers use improved services and infrastructure and adopt improved farming practices.</p> <p>Reliable supply of irrigation water in the project areas is maintained.</p> <p><b>Risk</b> Kyrgyzstan reported problems with governance, transparency, and corruption may adversely affect Project implementation and outcomes.</p>
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Design Summary	Performance Targets/ Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
	<p>Beneficiaries include 28,500 households and 158,500 people.</p> <p>Area of agriculturally productive arable, pasture land and orchards in the target area is maintained or increased.</p> <p>Soil erosion and salinity decline on target arable land (targets to be identified).</p> <p>Carrying capacity of pastures is to be maintained or increased on target pasture lands (targets to be identified)</p> <p>Carbon storage per hectare increases (targets to be identified)</p> <p>Agro-biodiversity increases (indicators and targets to be identified)</p>	<p>Project environment monitoring program</p>	
<p><b>Outputs</b> <b>1. Farm Development Component</b> 1.1 Improved capacity and technical scope of existing advisory service providers</p>	<p>All advisory service staff are trained in the delivery of the training material and in training methods appropriate for small farmers.</p>	<p>PMU contract monitoring</p>	<p><b>Assumption</b> Advisory services willing to cooperate with Advisory and Training Center, the Center Asian Mountain Partnership or other similar service providers.</p>
<p>1.2 Increased quality and outreach of advisory services.</p> <p>1.3 Facilitate access to existing legal services</p>	<p>96 trainers graduate from farmer field schools.</p> <p>750 village advisors trained.</p> <p>10,800 additional farmers access advisory services.</p> <p>4,200 additional poor and very poor farmers (disaggregated by gender) access advisory services.</p> <p>Increased use of legal services by farmers and agribusinesses to resolve disputes.</p> <p>Increased percentage of legal disputes satisfactorily resolved.</p>	<p>PMU contract monitoring</p> <p>Rapid survey</p> <p>PMU contract monitoring</p> <p>Rapid survey</p> <p>PMU contract monitoring</p> <p>Rapid survey</p> <p>Socio-economic survey</p> <p>LARC reports</p> <p>Rapid survey</p>	<p><b>Assumption</b> Field Schools receive expanded assistance under the GEF Alternative</p> <p><b>Assumption</b> Advisory services provided by trainers will be accepted by farmers and result in productivity improvements.</p>

Design Summary	Performance Targets/ Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
1.4 Increased availability and access to credit by farmers	<p>Repayment rate greater than 97.5%.</p> <p>FIRR on the investment not less than 12%.</p> <p>Increased percentage of farmers, including poor and women, accessing finance.</p>	<p>Socio-economic survey</p> <p>Financial institutions quarterly reports</p> <p>Rapid survey Socioeconomic survey</p>	<p><b>Assumption</b> Sufficient number of financially viable credit applications with adequate collateral required by financial institution.</p> <p><b>Assumption</b> Financial institutions expand sufficiently to serve all target project areas.</p>
<p><b>2. Agribusiness Development and Marketing Component</b></p> <p>2.1 Increased and Improved contractual arrangements between farmers and agribusiness</p>	<p>2,000 farmers secure new contracts with input supply, machinery services, wholesale and processing agribusinesses.</p> <p>38 input suppliers or machinery contractors secure new contracts with their suppliers and/or buyers with improved terms of contract.</p> <p>12 processors or agricultural produce wholesalers secure new contracts with their buyers.</p> <p>90% of contractual arrangements are complied with by both parties.</p>	<p>PMU contract monitoring</p> <p>Market survey</p>	<p><b>Risk</b> Either party or a contract defaults.</p>
<p>2.2 Improved agribusiness performance</p> <p>2.3 Increased availability and access to appropriate finance for agribusinesses</p>	<p>38 input suppliers and/or machinery services contractors achieve improvements in business performance targets.</p> <p>12 processors or agricultural produce wholesalers achieve improvements in business performance targets.</p> <p>Repayment rate greater than 97.5%.</p> <p>FIRR on the investment not less than 12%.</p>	<p>PMU contract monitoring</p> <p>Market Survey</p> <p>Financial statements</p> <p>Quarterly reports from financial institutions</p> <p>PMU monitoring</p> <p>Agribusiness financial statements</p> <p>Financial audits</p>	<p><b>Assumptions</b> Financially viable investment opportunities can be identified.</p> <p>Sufficiently strong cooperatives and agribusinesses can be identified as partners.</p>

Design Summary	Performance Targets/ Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
2.4 Increased public investment in physical market infrastructure	Repayment rate on leases greater than 97.50%.  FIRR to the lessee of not less than 12%.	PMU monitoring  Beneficiary contact monitoring	<b>Assumptions</b> Financially viable opportunities for investment can be identified.  Sufficient private sector interest in leasing facilities.
<b>3. Irrigation and Drainage Component</b> 3.1 Improved WUA management  3.2 Rehabilitated irrigation and drainage infrastructure	At least 17 legally established WUAs.  All WUAs increase service fees and collection rates to ensure annual operation and maintenance plans are effectively implemented.  WUA increase efficiency of water use and water management so that (i) an increased percentage of water users are receiving reliable irrigation water; (ii) the volume of water delivered to farm plots is satisfactory for crops grown; and (iii) the percentage of water users satisfied with WUA managerial and operational performance increases.  Increased participation of women in WUA councils, directorate, and committees.  Off farm and onfarm drainage and irrigation infrastructure serving at least 28,500 ha in at least 17 WUAs is successfully rehabilitated.	WUA Support Unit reports  WUA water measurements  Participatory survey  Beneficiary contact monitoring  PMU contract monitoring and reports  PMU quarterly progress reports	<b>Assumptions</b> The Government makes continuing and sufficient annual budget allocations for O&M of off-farm drainage and irrigation systems.  Farmers willing to pay increased irrigation service fee.  <b>Assumption</b> Rehabilitated irrigation and drainage systems are properly managed by WUAs to equitably serve all farmers.
<b>4. Land Improvement Component</b> 4.1 Sustainable Pasture Land Management	Appropriate institutional framework with designated roles and responsibilities agreed and formalized.  Revenue sharing arrangements amongst oblast, raion, and <i>aiyl okmotu</i> established.  <i>Aiyl okmotu</i> pasture lease revenues reinvested in pasture land improvements.  Integrated, coordinated and participatory planning process established and implemented.  Communities mobilized to ensure effective participation (by both women and men) in pasture land planning and management.  Community based pasture land management plans will be prepared for pastures serving farmers in selected <i>aiyl okmotu</i> .	Decree on institutional framework and responsibilities  PMU contract monitoring  <i>Aiyl okmotu</i> financial audits  Approval by relevant government agency	<b>Assumption</b> Plans are flexible and responsive to the ongoing and changing needs of communities, managers and the environment.  Stakeholders are willing to participate in pasture and orchard planning with <i>aiyl okmotu</i> .  <b>Risk</b> Local government

Design Summary	Performance Targets/ Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
	<p>In these selected <i>aiyl okmotu</i>: (i) pasture conditions are surveyed and pasture maps prepared; (ii) pasture improvement plans prepared; (iii) pasture land management committees are established and trained; (iv) pasture monitoring system is established; and (v) pasture infrastructure rehabilitation plans are prepared.</p> <p>Pasture land management plans implemented and monitored with participation of the community.</p>		<p>institutions' capacity remains inadequate.</p>
<p>4.2 Improved orchard management</p>	<p>In selected <i>aiyl okmotu</i>: (i) legal restrictions relating to tree planting and tree crop harvesting resolved; (ii) improved leasing arrangement for leasing orchards; (iii) orchards planted with new stock; (iv) farmers trained in orchard and tree crop management.</p>	<p>PMU monitoring</p> <p>Orchard monitoring report</p> <p>Beneficiary contact monitoring</p> <p>Data from various surveys</p> <p>CACILM annual reports</p>	<p><b>Assumptions</b></p> <p>Rights and responsibilities of respective land leases are respected by Government agencies.</p> <p><i>Aiyl okmotu</i> develop sufficient capacity to prepare and implement plans.</p> <p>Willingness of forest farmers to cooperate with <i>aiyl okmotu</i> pasture and orchard planning group.</p> <p>Willingness of raion and oblast administration to delegate responsibility for orchard management to <i>aiyl okmotu</i>.</p> <p>Legal restrictions can be overcome.</p> <p><b>Risk</b></p> <p>Either party to a contract defaults.</p>
<p><b>5. Project Management</b></p> <p>5.1 Efficient and effective project management system established and operational.</p>	<p>Project implemented on schedule.</p> <p>Quarterly and annual work plans and reports submitted within one month of the relevant period.</p> <p>Annual audit, financial statements and management letter submitted by 30 June each year.</p>	<p>PMU reports</p> <p>CACILM annual reports</p>	<p>International technical expertise envisaged under the GEF Alternative is mobilized.</p>

Design Summary	Performance Targets/ Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
	Comprehensive monitoring of indicators of the status of land degradation, carbon sequestration, on-site and off-site environmental impacts are monitored		

Activities	Inputs
<ul style="list-style-type: none"> <li>1.1.1 Undertake situation assessment and prepare <i>aiyl okmotu</i> plans.</li> <li>1.1.2 Contract and monitor improvement of training materials.</li> <li>1.2.1 Contract for expansion of village advisory services.</li> <li>1.2.2 Contract and monitor implementation of field schools.</li> <li>1.3.1 Identify legal service needs.</li> <li>1.3.2 Sign memorandum of understanding with Legal Assistance to Rural Citizens.</li> <li>1.4.1 Identify, select, contract and monitor financial institutions.</li> <li>2.1.1 Identify and support contract between farmers and agribusinesses.</li> <li>2.2.1 Contract and monitor delivery of advisory services to agribusinesses.</li> <li>2.3.1 Identify, select, contract and monitor financial institutions.</li> <li>2.4.1 Identify facilities and private sector interest in market infrastructure.</li> <li>2.4.2 Facilitate agreements and contract arrangements between parties.</li> <li>2.4.3 Monitor the facilities and arrangements.</li> <li>3.1.1 Monitor training of WUAs provided under World Bank projects.</li> <li>3.2.1 Undertake joint assessment of WUA and rehabilitation needs.</li> <li>3.2.2 Prepare design for rehabilitation works.</li> <li>3.2.3 Engage contractor and supervise civil works.</li> <li>4.1.1 Mobilize communities.</li> <li>4.1.2 Conduct socioeconomic survey and survey of pasture conditions.</li> <li>4.1.3 Facilitate preparation of pasture land management plans.</li> <li>4.1.4 Implement pasture management plans and monitor effects based on M&amp;E system.</li> <li>4.2.1 Assist in preparation of orchard management plans.</li> <li>4.2.2 Assist <i>aiyl okmotu</i> in establishing and monitoring lease agreements with farmers.</li> <li>5.1.1 Recruit international and national consultants.</li> <li>5.1.2 Establish financial management system.</li> <li>5.1.3 Prepare procurement documents for approval, tender and evaluation.</li> <li>5.1.4 Establish monitoring and evaluation system.</li> <li>5.1.5 Conduct baseline and regular surveys.</li> <li>5.1.6 Submit quarterly progress and other required reports.</li> </ul>	<p>ADB Loan: \$15.00 million  ADB Grant: \$5.00 million  GEF Grant : \$2.50 million  Government: \$6.81 million  WUAs: \$1.92 million</p>

ADB = Asian Development Bank; DWR = Department of Water Resources; FIRR = financial internal rate of return; GEF = Global Environment Facility; M&E = monitoring and evaluation; O&M = operation and maintenance; PMU = project monitoring unit; WUA = water users association.

### Annex C: Estimated Costs

Project components	Co-finance	GEF	Sub-total cost
<b>1. Farm Development</b>			
1.1 Baseline Activities	3,679,000		
1.2 Sustainable Land Management Advisory Services		871,000	
1.3 Sustainable Land Management Field Schools			4,550,000
<b>2. Agribusiness Development and Marketing</b>			
Baseline Activities	4,334,000		4,334,000
<b>3. Irrigation and Drainage</b>			
Baseline Activities	15,912,000		15,912,000
<b>4. Land Improvement</b>			
4.1 Baseline Activities	1,831,000		
4.2 Pasture Land Management Planning			
4.3 Community Based Pasture Land Mapping and Monitoring		1,147,000	
Sub-total			2,978,000
<b>5. Project Management</b>			
5.1 Baseline Activities	3,177,000		
5.2 Monitoring and Evaluation of Environmental Impacts		482,000	
Sub-total			3,659,000
Sub-total	28,213,000	2,500,000	30,713,000
Financial Charges	521,000		521,000
<b>Total</b>	<b>28,734,000</b>	<b>2,500,000</b>	<b>31,234,000</b>

### Annex D: Monitoring and Evaluation Plan

Objectives	Key performance indicator target at Project's end	Baseline	Critical benchmarks and target dates	Sampling frequency				
<b>Project Objective</b>	The Project's impact is region-wide adoption of the improved agricultural, orchard, and pasture management techniques introduced.							
<b>Outcomes</b>								
Sustainable increase in land productivity and profitability			<b>Irrigated</b>		2007 Provincial and district statistics on crop areas, yields and production	The 2008-2010 average yield of these crops to increase by 20%. and by 2012 by an average of 25% over the baseline yields	Annual Project Farm Survey	
		<b>Unit</b>	<b>Without</b>	<b>With</b>				<b>% change</b>
	<b>Wheat</b>	T/ha	2.6	4.4				25
	<b>Maize</b>	T/ha	4.3	6.3				25
	<b>Sunflower</b>	T/ha	1.3	1.9				25
	<b>Cotton</b>	T/ha	1.8	3.8				25
	<b>Tomato</b>	T/ha	33.0	41.3				25
	<b>Lucerne Hay</b>	T/ha	10.0	12.0				0
	<b>Milk (lactation cows)</b>	L/lactation		1,893				37
	<b>Apricots, dried</b>	T/ha	5.5	6.0				20
	<b>Apples</b>	T/ha	2.0	22.0				10
			<b>Rainfed</b>					
		<b>Unit</b>	<b>Without</b>	<b>With</b>				<b>% change</b>
	<b>Wheat</b>	T/ha	1.5	1.9				25
<b>Sunflower</b>	T/ha	0.8	0.9	10				
<b>Lucerne</b>	T/ha	6.0	6.6	10				

Objectives	Key performance indicator target at Project's end	Baseline	Critical benchmarks and target dates	Sampling frequency
	<p>Gross margins increase about 40% from about \$512 to \$720 per hectare.</p> <p>Cash margin of target farms increases about 30% from \$314 to \$\$400 per 4 hectare.</p> <p>75% of targeted farms and agribusinesses adopt new techniques and practices.</p> <p>Beneficiaries include 28,500 households and 158,500 people.</p> <p>Area of agriculturally productive arable, pasture land and orchards in the target area is maintained or increased.</p> <p>Soil erosion and salinity decline on target arable land (targets to be identified).</p> <p>Carrying capacity of pastures is to be maintained or increased on target pasture lands (targets to be identified)</p> <p>Carbon storage per hectare increases (targets to be identified)</p> <p>Agro-biodiversity increases (indicators and targets to be identified)</p>	<p>2006</p> <p>2006</p> <p>2006</p> <p>2006</p> <p>2008 (baseline established)</p> <p>2008 (baseline established)</p> <p>2008 (baseline established)</p> <p>2008 (baseline established)</p>	<p>2008, 2010, 2012 Household income surveys to assess changes in farmers' margins, and production patterns.</p> <p>Increasing trend</p> <p>Increasing trend</p> <p>Increasing trend</p> <p>Increasing trend</p>	<p>Annual Surveys</p> <p>Annual Surveys</p> <p>Annual Surveys</p> <p>Annual Surveys</p> <p>Annual monitoring</p> <p>Annual environmental monitoring</p> <p>Annual environmental monitoring</p> <p>Annual environmental monitoring</p> <p>Annual environmental monitoring</p>

Objectives	Key performance indicator target at Project's end	Baseline	Critical benchmarks and target dates	Sampling frequency
<b>Outputs</b>				
<b>1. Farm Development</b> 1.1 Improved capacity and technical scope of existing advisory service providers	All advisory service staff are trained in the delivery of the training material and in training methods appropriate for small farmers.	Situation in 2006	By end 2008 Quality training materials are available by 2008.	Annual assessment under project M&E system.
1.2 Increased quality and outreach of advisory services.	96 trainers graduate from farmer field schools.  750 village advisors trained.  10,800 additional farmers access advisory services.  4,200 additional poor and very poor farmers (disaggregated by gender) access advisory services.	Advisory service staff lack training  Interface of service providers with farmers is weak and sporadic	Consultants to provide more expanded training are in place.  By end 2009 first batch of farmers have been trained to become service providers.	Rapid Rural Assessment of farmers response in various project area villages.  Periodic monitoring introduced under the project
1.3 Facilitate access to existing legal services	Increased use of legal services by farmers and agribusinesses to resolve disputes.  Increased percentage of legal disputes satisfactorily resolved.	2007		Annual Reporting
1.4 Increased availability and access to credit by farmers	The number of legal disputes decline. Repayment rate greater than 97.5%.  FIRR on the investment not less than 12%.  Increased percentage of farmers, including poor and women, accessing finance.	Not applicable  2007		Annual Reporting on credit  Annual Reporting on credit
<b>2. Agribusiness Development and Marketing</b>				
2.1 Increased and Improved contractual arrangements	2,000 farmers secure new contracts with input supply, machinery services, wholesale and processing agribusinesses.  38 input suppliers or machinery contractors secure new			Annual Monitoring Reports  Annual Monitoring

Objectives	Key performance indicator target at Project's end	Baseline	Critical benchmarks and target dates	Sampling frequency
between farmers and agribusiness	<p>contracts with their suppliers and/or buyers with improved terms of contract.</p> <p>12 processors or agricultural produce wholesalers secure new contracts with their buyers.</p> <p>90% of contractual arrangements are complied with by both parties.</p>			<p>Reports</p> <p>Annual Monitoring Reports</p> <p>Periodic surveys</p>
<p>2.2 Improved agribusiness performance</p> <p>2.3 Increased availability and access to appropriate finance for agribusinesses</p> <p>2.4 Increased public investment in physical market infrastructure</p>	<p>38 input suppliers and/or machinery services contractors achieve improvements in business performance targets.</p> <p>12 processors or agricultural produce wholesalers achieve improvements in business performance targets.</p> <p>Repayment rate grater than 97.5%.</p> <p>FIRR on the investment not less than 12%.</p> <p>Repayment rate on leases greater than 97.50%.</p> <p>FIRR to the lessee of not less than 12%.</p>	<p>Not applicable</p> <p>Not applicable</p>		<p>Annual monitoring</p> <p>Periodic survey</p> <p>Annual Reporting on credit</p> <p>Annual Reporting on credit</p>
<p><b>3. Irrigation and Drainage</b></p> <p>3.1 Improved WUA management</p>	<p>At least 17 legally established WUAs.</p> <p>All WUAs increase service fees and collection rates to ensure annual operation and maintenance plans are effectively implemented.</p> <p>WUA increase efficiency of water use and water management so that (i) an increased percentage of water users are receiving reliable irrigation water; (ii) the volume of water delivered to farm plots is satisfactory for crops grown; and (iii) the percentage of water users satisfied with WUA managerial and operational performance increases.</p> <p>Increased participation of women in WUA councils, directorate, and committees.</p>	<p>2007</p> <p>2007</p> <p>2007</p> <p>2007</p>	<p>End of Project</p>	<p>Annual WUA reports</p> <p>Annual WUA reports</p> <p>Periodic surveys</p> <p>Periodic beneficiary monitoring</p>



Objectives	Key performance indicator target at Project's end	Baseline	Critical benchmarks and target dates	Sampling frequency
<p><b>5. Project Management</b></p> <p>5.1 Efficient and effective project management system established and operational.</p> <p>5.2 Monitoring and Evaluation Project Environmental Impacts</p>	<p>Project implemented on schedule.</p> <p>Quarterly and annual work plans and reports submitted within one month of the relevant period.</p> <p>Annual audit, financial statements and management letter submitted by 30 June each year.</p> <p>Comprehensive monitoring of indicators of the status of land degradation, carbon sequestration, on-site and off-site environmental impacts are monitored</p>	<p>Not applicable</p> <p>No monitoring system in place</p>	<p>2007 PMU established</p> <p>2007 Monitoring system designed 2008 Monitoring operationalized</p>	<p>Annual Performance Management Reports</p> <p>Annual Environmental Monitoring Report</p>

## Annex E: Work Plan

ID	Task Name	2008				2009				2010				2011				2012				2013			
		Q2	Q3	Q4	Q1	Q1	Q2	Q3	Q4																
1	<b>1. Farm Development</b>																								
2	1.1. Baseline Activities																								
3	1.2 SLM Advisory Services																								
4	1.3 SLM Field Schools																								
5	<b>2. Agribusiness Development and Marketing</b>																								
6	3. Irrigation and Drainage																								
7	4. Land Improvement																								
8	4.1 Baseline																								
9	4.2 Pasture Land Management Planning																								
10	4.3 Community Based Pasture Land Monitoring																								
11	<b>5. Project Management</b>																								
12	5.1 Baseline Activities																								
13	5.2 Monitoring and Evaluation of Environmental Impac																								

Task  
 Split  
 Milestone  
 Summary  
 External Tasks  
 External Milestone  
 Project Summary  
 Deadline

Project: SAADP\_GEF  
Date: Wed 21/03/07

## Annex F: Public Participation Plan

Project components & Key Strategic Actions	Stakeholders	Gender Participation Action Plan	Stakeholder Participatory modes/ mechanisms	Possible conflicts/mitigation strategy
<b>1. Farm Development Component</b>				
<p>Strengthening Capacity at the grassroots: Village advisory services</p> <p>- Farmer field schools</p> <p>- Provision of appropriate consultancy services</p>	<p>Private peasant households</p> <p>Private cooperative or commercial farm operators</p> <p>Rural advisory service providers</p> <p><i>aiyl okmotu</i></p> <p><i>raion</i> &amp; oblast administrations</p> <p>CACILM National Secretariat &amp; NCC</p>	<p>Women are important participants in the farming activities. The service providers will ensure that the process for identifying trainees for the village advisory services will encourage eligible women. The aim is for a minimum of 25% of the trainees to be women.</p>	<p>To make trainees from the community who will be paired with master trainers accountable for other farmers from the same community and ensure further dissemination of the acquired knowledge and skills, such trainees will be selected through a participatory process within the community, so that the most respected community leaders are selected.</p>	<p>Avoid the problem of moral hazard by making the selection process transparent and informing the communities about the training activities.</p>
<p>Provision and dissemination of high-quality training materials</p>		<p>The assessment of existing training manuals by advisory service providers will include a critical review and revision of the methodologies currently used to (i) maximize outreach to groups that are difficult to reach, such as women and the poor; (ii) ensure inclusion of area- and problem-specific needs assessment methodologies such as participatory rural appraisals (PRAs) and gender analysis; and (iii) develop training activities on SLM practices to optimize conservation-based agriculture and on crops grown on household plots, which are mostly managed by women. This will be ensured through the terms of reference and the performance-based contracts with service providers.</p>		
<p>Legal advisory services</p>	<p>Rural Citizens Association of Lawyers.</p> <p>Farmers</p>	<p>The Project will sign a memorandum of understanding with the Association to provide legal services on a retainer basis. The Project will identify farmers' legal problems, and in cases where the Project cannot solve them, farmers will be referred to the Association. While project pay the costs of such advice, farmers will be required to bear costs of specific legal advice/intervention.</p>		<p>Purpose to improve farmers' understanding of their legal rights, improve contract enforcement, and create greater confidence in legal contracts to provide a more stable climate for investment.</p>
<p>Credit line</p>	<p>microfinance wholesalers</p>	<p>For the credit line available from the Project so that women and lower-income households have more access to credit.</p>		<p>Mechanisms for social mobilization of rural communities to avail of credit facilities may act as a constraint.</p>
<b>2. Agribusiness Development and Marketing</b>				
<p>Marketing support</p>	<p>Marketing groups, Cooperatives Agribusiness enterprises</p> <p>Two already</p>	<p>The service provider will encourage women either to form female only or to joined mixed marketing groups and cooperatives.</p>	<p>The service provider (as specified in the terms of reference and the contract) will encourage the formation of informal</p>	<p>The contractual service providers will need to be reinforced by the participation of civil society and community-based organizations</p>

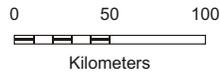
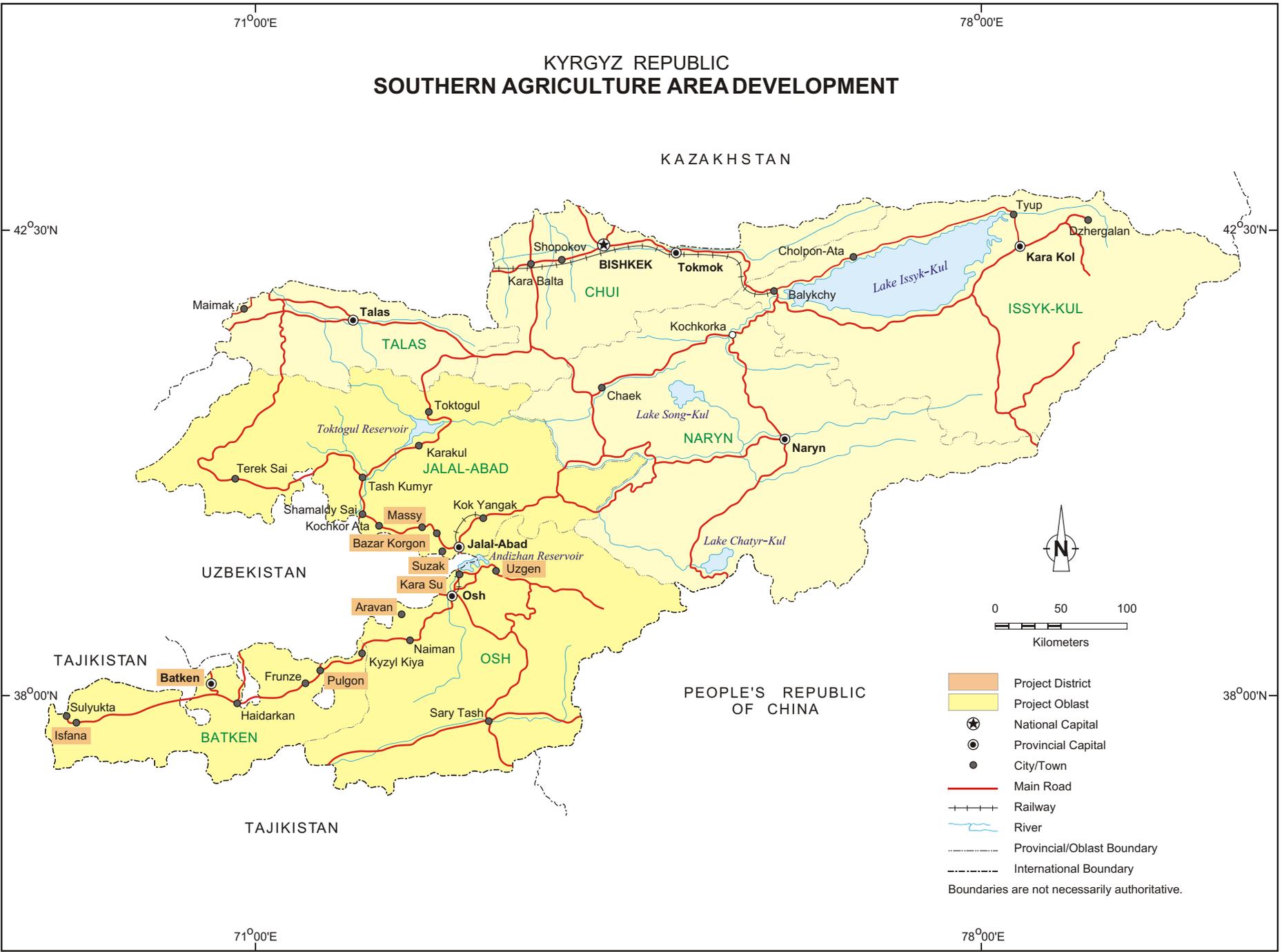
	<p>identified agencies:</p> <p>The Agribusiness Competitiveness Center and the Marketing Development Service</p>		<p>marketing groups and cooperatives.</p> <p>Where necessary, the Project will provide organizational development support for cooperative formation in cooperation with projects by other funding agencies</p>	<p>and NGOs in mobilizing the women and farmers to join in voluntary cooperatives or marketing groups.</p>
<b>3. Irrigation and Drainage Rehabilitation</b>				
Physical rehabilitation	<p>Ministry of Agriculture, Water Resources, and Processing Industry (MAWRPI)</p> <p>Oblasts and private sector for civil works</p>	<p>The selection criteria for support by the Project, in line with Agriculture Area Development Project and Onfarm Irrigation Project procedures, will include the establishment of operation and maintenance funds in water user associations (WUAs) and written agreement from all WUA members to repay 25% of the costs of civil works.</p>		<p>Implementation &amp; Oversight capacity constraints would need to be addressed.</p> <p>Transparency in contractual &amp; procurement procedures are crucial in award of contracts</p>
WUA institutional support	<p>DWR, Oblast, WUA leaders farmers</p>	<p>WUA support units and the PMU will guide WUA management on encouraging women to participate in meetings and their representation as informally selected, village-level WUA leaders and to run for the next elections for WUA council members.</p>	<p>Institutional strengthening of WUAs will involve:</p> <ul style="list-style-type: none"> <li>- <i>Joint planning</i>. Under the Project, a series of meetings will be held prior to the start of any works to ensure that all members understand and agree to the proposed rehabilitation priorities, timetable, financial implications, and repayment obligations.</li> <li>- <i>Participatory monitoring and evaluation (M&amp;E)</i>. WUA members will closely monitor the performance of the contractors, ensure fair and timely payment by the contractors</li> </ul>	<p>the accountability of WUA councils, and the capacity to deal with disputes regarding repayment for O&amp; M vary across WUAs. Project to address this issue through the already existing dispute resolution committees.</p>
<b>4. Land Improvement</b>				
Sustainable Pasture management	<p>Pasture user associations</p> <p>pastoralists</p> <p>government agencies and institutes involved in pasture land management, pastures and livestock development</p>	<p>Through the community mobilization process, community members will jointly decide on the level of gender balance in the pasture- user groups to be formulated under the Project. Training opportunities for sustainable pasture land and livestock management will be provided equally to men and women.</p> <p>During plan implementation,</p>	<p>The Project will engage a qualified NGO or other service provider to facilitate community mobilization for the preparation and implementation of sustainable pasture land management plans. PRA (including land use mapping, gender analysis, and institutional assessments) and socioeconomic surveys will initially be</p>	<p>The pasture-user groups will be also used as a grievance redress mechanism by community members to bring complaints to the attention of <i>aiyl okmotu</i> and raion administrations.</p> <p>A functional land lease market exists, but the land sales market is largely inactive. Moreover, the Land Redistribution Fund consists of 25% of</p>

		participatory M&E will be carried out by community members, including women members, through the pasture-user groups to assess effectiveness and identify areas for further improvement jointly with <i>aiyl okmotu</i> .	conducted to engage community members (male and female) to identify current practices, constraints, priorities, and opportunities. These exercises will become the basis for the formulation of pasture-user groups, which will finalize the pasture land management plan through community-based consensus building. During plan implementation, participatory M&E will be carried out by community members through the pasture-user groups to assess effectiveness and identify areas for further improvement jointly with <i>aiyl okmotu</i> .	arable land that was not distributed, intended partly for allocation to the poorest members of society and those returning to the country after the land distribution process. The fund is managed by <i>aiyl okmotu</i> , and land is mostly leased on a competitive basis. However, the transparency and competitiveness of the leasing process vary. The Land Redistribution Fund limits the amount of land that is available for the private lease and sales market.
Orchard improvement	<i>aiyl okmotu</i> <i>rural communities raions &amp; oblasts</i>	<i>Aiyl okmotu</i> , which will prepare an orchard improvement plan, will consult widely with community members. For them to better understand the needs of the poor, women, and other excluded groups within the community, smaller informal groups (e.g., neighborhood groups, informal groups associated with orchard management, women's groups) will be extensively consulted. The Project will provide expert assistance to <i>aiyl okmotu</i> in this process.		
<b>5. Project Management</b>				
Responsibility	The PMU will be responsible for overall implementation of the gender action plan and the community participation plan. Where private sector service providers are involved, the terms of reference and the performance-based contracts with them will ensure their compliance with the two plans.			
PMU consultants	The Project will engage gender and community development specialists (one international and one national) who will (i) prepare terms of references for service providers in relation to implementation of the gender action plan; (ii) develop M&E indicators and institutional arrangements for monitoring the indicators, especially gender-disaggregated data and the achievement of gender targets; (iii) monitor the performance of service providers and the achievement of project progress; and (iv) assess outputs and outcomes in relation to gender equality and community participation. The specialists will be encouraged to provide gender and participation training to selected service providers; the Ministry of Agriculture, Water Resources, and Processing Industry; oblasts; raions; and <i>aiyl okmotu</i> to enhance their understanding of the need to improve gender equality and participation by community members.			
M&E system	Results and performance indicators and baseline and review surveys will include the level of participation and engagement by community members (disaggregated by gender, poverty level, ethnic group, etc.) and the level of group cohesion forged through the Project's activities.			
Public relations	Information dissemination regarding the opportunities available through the Project will target women beneficiaries. The Project's gender action plan will also be disseminated together with information about Project components.			
Stakeholder participation and inter-agency Coordination	With respect to the implementation of the SAAD Project activities, the PMU will closely coordinate with the CACILM national Secretariat and the National Coordination Council (NCC) and participate in its relevant stakeholder consultative mechanisms.			

**Annex G:**  
**Country MAP of Kyrgyz Republic**

# KYRGYZ REPUBLIC SOUTHERN AGRICULTURE AREA DEVELOPMENT

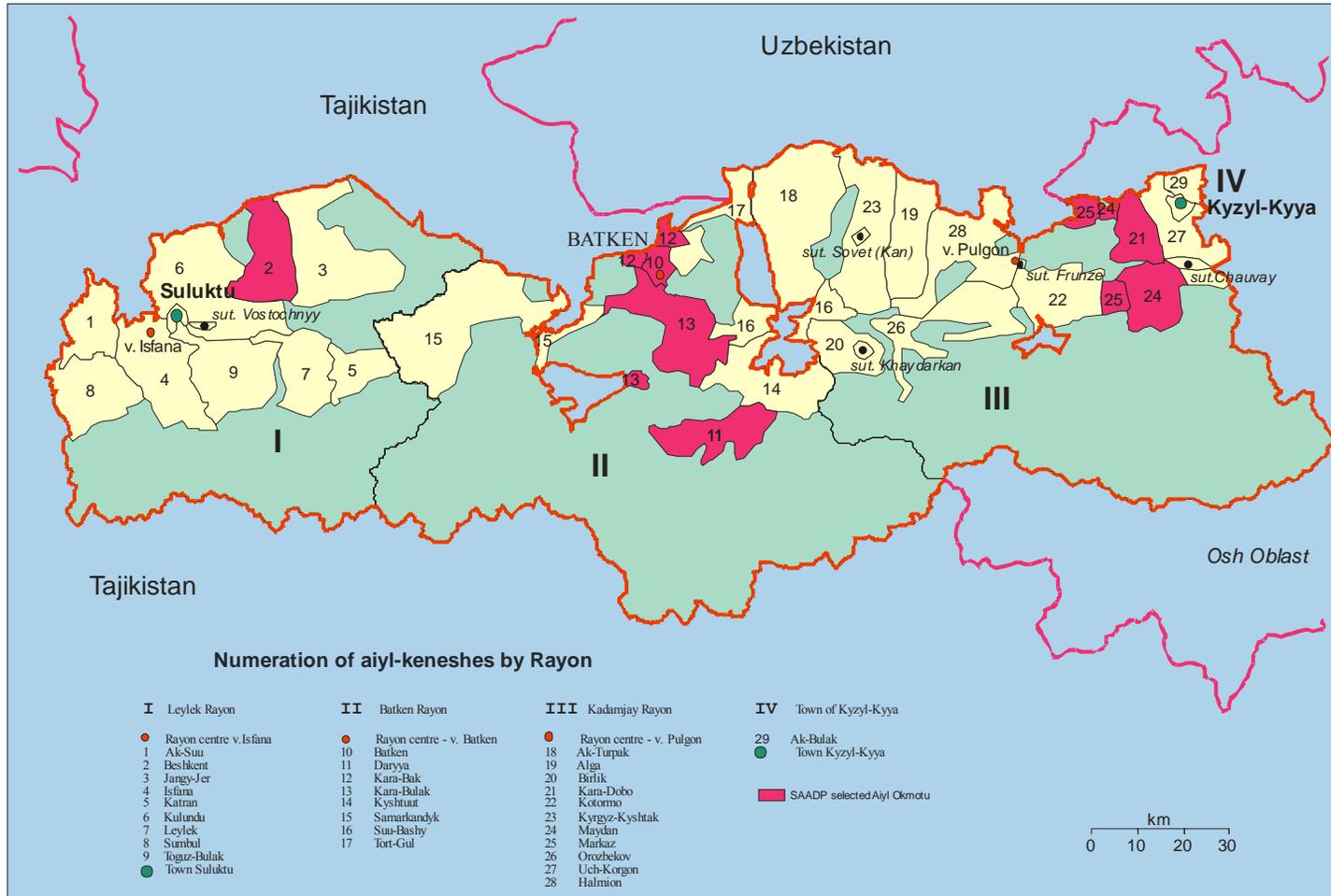
KAZAKHSTAN



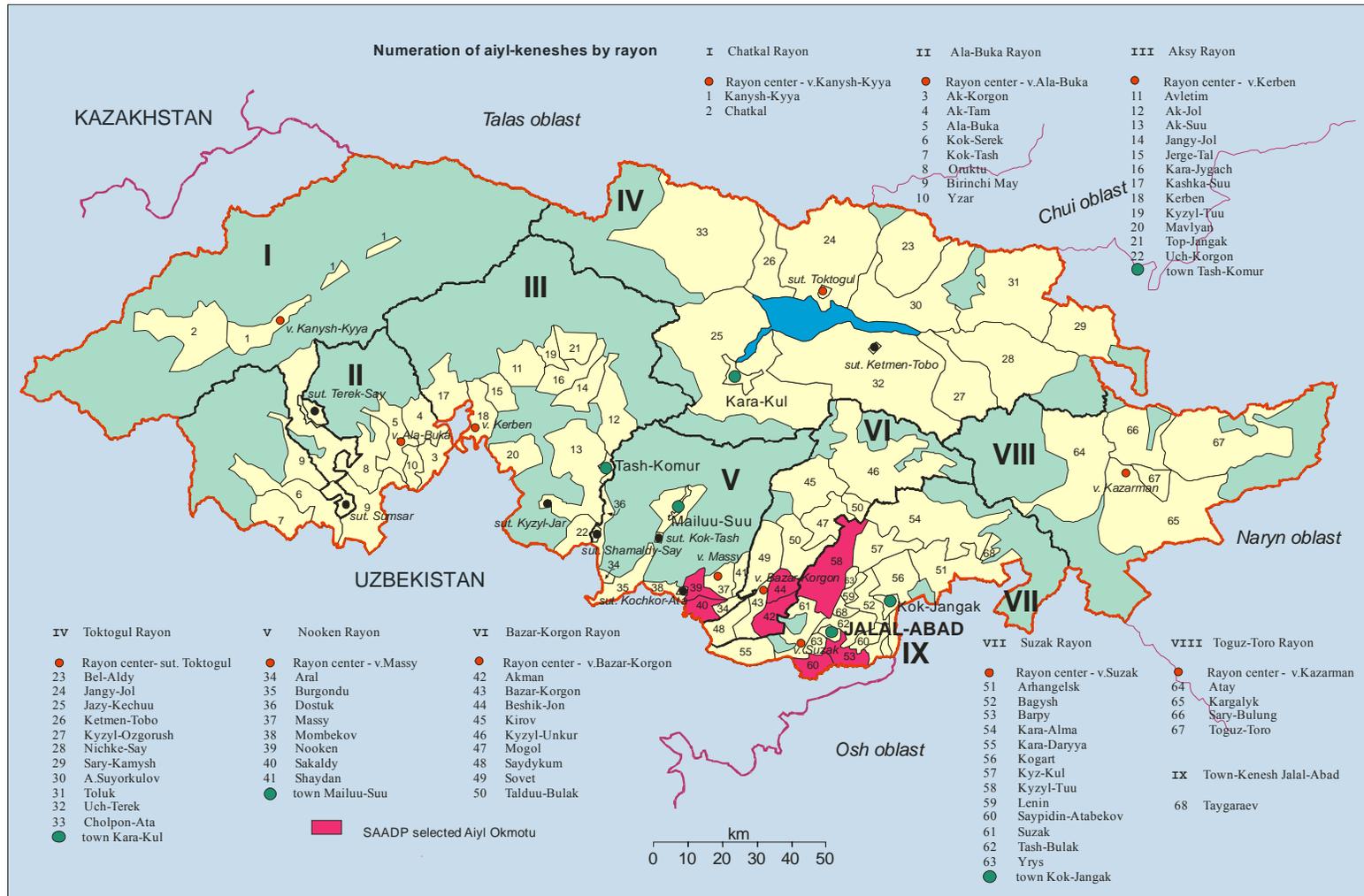
- Project District
  - Project Oblast
  - National Capital
  - Provincial Capital
  - City/Town
  - Main Road
  - Railway
  - River
  - Provincial/Oblast Boundary
  - International Boundary
- Boundaries are not necessarily authoritative.

## G.2 Project Area Maps

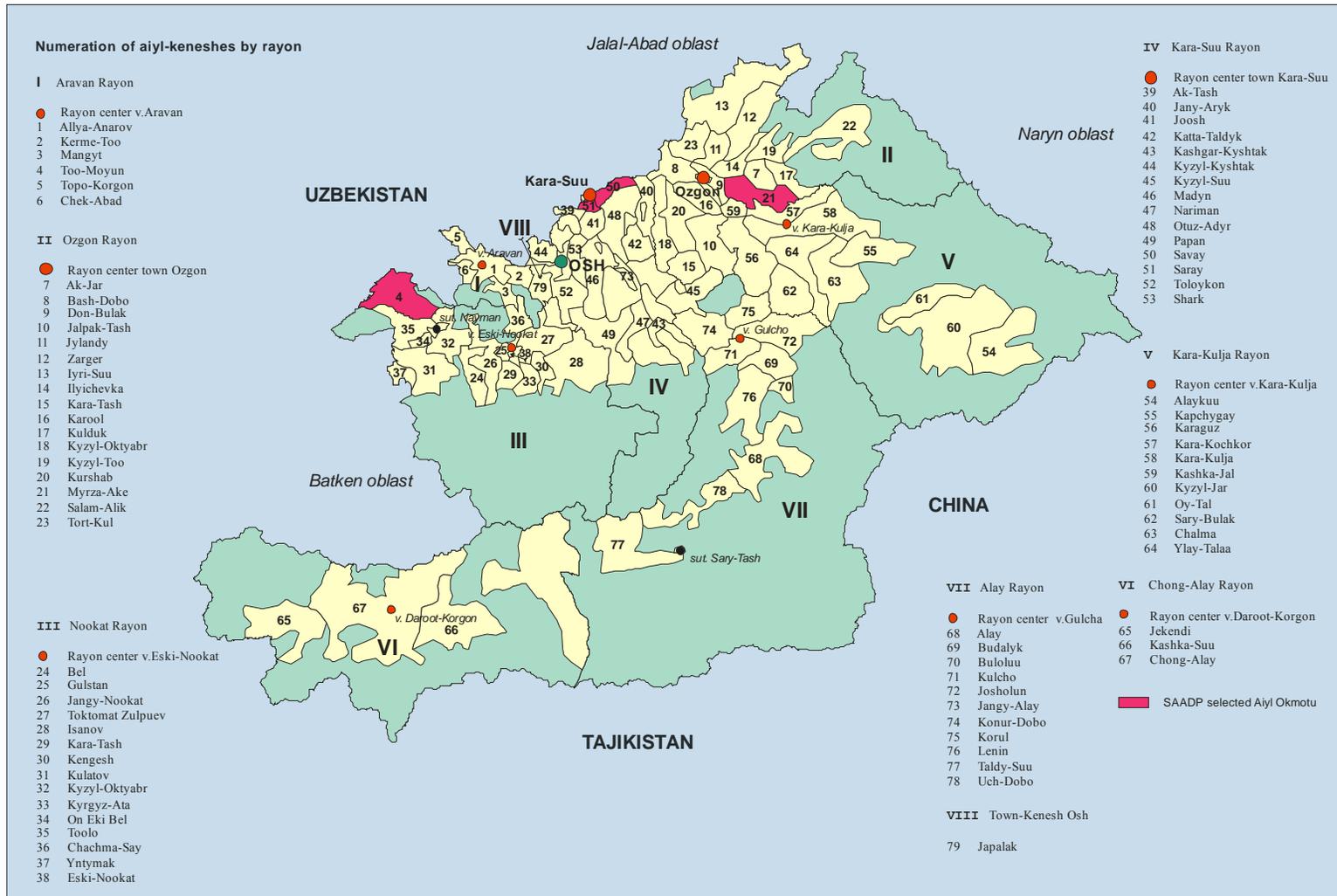
Project Area: Batken Oblast, showing rayon and ayil okmotu (AO) boundaries with short-listed AOs shaded.



Project Area: Jalalabad Oblast, showing rayon and ayil okmotu (AO) boundaries with short-listed AOs shaded.



Project Area: Osh Oblast, showing rayon and ayil okmotu (AO) boundaries with short-listed AOs shaded.



## Annex H: OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

### A. Introduction

1. Consultants will be engaged for a total of 96 person-months, of which 5 person-months will be for unallocated short-term consultants. The latter will be used as the need arises during project implementation. More comprehensive and detailed terms of reference are in Supplementary Appendix I.

### B. Responsibilities of the Consultants

2. In all cases, the international consultants will undertake all their duties alongside the relevant national consultants and provide leadership and guidance and formal and on-the-job training to ensure that the national consultants have the capacity to assume maximum responsibility for all aspects of project implementation at the earliest possible date.

#### 1. **Team Leader** (27 person-months)

3. The team leader will undertake the following tasks:

- (i) Provide direction to the Ministry of Agriculture, Water Resources, and Processing Industry (MAWRPI) and the Project Management Unit (PMU) in relation to project implementation and development to ensure that it achieves the intended outcome and outputs.
- (ii) Establish all project management systems and transfer management of these systems to local staff with appropriate training.
- (iii) Participate as a member of the Tender Committee and help evaluate all tenders.
- (iv) Agree on and implement arrangements for undertaking due diligence of financial institutions applying for participation in the project credit line.
- (v) Manage the consulting team and support staff.

#### 2. **Monitoring and Evaluation Specialist** (10 person-months)

4. The monitoring and evaluation specialist will engage in the following activities:

- (i) Help the PMU recruit, supervise, and train national staff.
- (ii) Establish a comprehensive monitoring and evaluation system to include a baseline survey; indicators of progress toward achievement of outputs and outcome; and assessment of the Project's environmental, social, poverty, and gender impact.
- (iii) Design a reporting system to meet the requirements of the Ministry of Economy and Finance, the MAWRPI, and the Asian Development Bank (ADB).

#### 3. **Farm and Agribusiness Development Specialist** (19 person-months)

5. *The farm and agribusiness development specialist will perform the following tasks:*

- (i) *Support the PMU in implementing all activities under the farm development component and the agribusiness development and marketing component.*
- (ii) Help the PMU recruit, supervise, and train national staff.
- (iii) Maintain information on policy issues, investments by development partners and the private sector, and current status of and opportunities for farms and agribusinesses in the project area.

- (iv) Design and supervise implementation of the rapid appraisal of the *aiyl okmotu* in cooperation with the project monitoring and evaluation team and supervise the preparation of simple strategies for each *aiyl okmotu* that will include the identification of priority products and their value chains for support under the Project.
- (v) Identify, inform, and assess agribusinesses (processors, input suppliers, wholesalers and trading companies, machinery and spare parts suppliers, and machinery contractors) that do or could potentially serve the project area.
- (vi) Prepare terms of reference for the technology development, farmer field schools, village advisory services, marketing support to farmers, and agribusiness advisory services contracts.
- (vii) Review training materials used by the advisory services and, where necessary, recommend improvements.
- (viii) Maintain an overview of the strategies, methodologies, and management practices of the farm and business advisory services contracted by the Project and recommend improvements in the quality of services.
- (ix) Identify storage and cooling facilities critical to the functioning of priority value chains in each *aiyl okmotu*, assess their potential for support under the Project, and prepare terms of reference for the design and construction and/or rehabilitation of the facilities.
- (x) Help the PMU supervise contractors and develop systems for monitoring the performance of services.

**4. Irrigation and Drainage Engineer (9 person-months)**

6. The irrigation and drainage engineer will undertake the following tasks:
- (i) Help the PMU recruit, supervise, and train national staff.
  - (ii) Assist the procurement specialist with all technical aspects of preparing requests for proposals, including detailed terms of reference, and in evaluating bids for services from design companies.
  - (iii) Ensure that the design process fully involves the members of water user associations (WUAs), that WUA members are fully briefed on proposed designs, and that members' priorities are taken into full consideration during design.
  - (iv) Ensure that designs are subject to proper technical review and approval by the technical committee chaired by the oblasts' departments of water resources and the environmental review and approval by the State Committee for Environmental Protection and Forestry.
  - (v) Review designs prior to approval of tenders for construction and formally indicate approval or otherwise of designs for submission by the PMU to ADB.
  - (vi) Assist the procurement specialist with all technical aspects of preparing requests for proposals, including detailed terms of reference, and in evaluating bids for services from civil works construction companies.
  - (vii) Carry out field visits of ongoing subprojects and ensure that adequate procedures for construction supervision are in place.

**5. Pasture Management Specialist (14 person-months)**

7. The pasture management specialist will engage in the following tasks:
- (i) Prepare a detailed project plan, schedule, and annual budgets for implementation and monitoring of sustainable pasture land management.

- (ii) Help the PMU (a) recruit national staff for the sustainable pasture land management activities; (b) prepare terms of reference and contract service providers to carry out social and environmental surveys and plan and supervise the pasture improvement plans; and (c) allocate funds to the *aiyl okmotu* for pasture land improvements.
- (iii) Supervise and provide on-the-job training for national staff.
- (iv) Work with relevant government agencies to formalize the institutional framework for pasture land management planning.
- (v) Develop a methodology and approach for community-based pasture land management planning.
- (vi) Provide guidance, capacity development, oversight, and quality control and assurance for the preparation of pasture land management planning activities.
- (vii) Provide advice and oversight in relation to the allocation of funds for implementing *aiyl okmotu* pasture land improvement plans.
- (viii) Design and develop a pasture land monitoring system to collect data on various pasture land management indicators.
- (ix) Design and supervise the development of a pasture land management information system for pasture land management indicators in consultation with the Central Asian Countries Initiatives for Land Management (CACILM) with provision for data collection by remote sensing (satellite imagery) and the establishment of a spatial geographic information system (GIS) database.
- (x) Supervise socioeconomic surveys, surveys of the condition of pasture land forage, and preparation of pasture boundary maps.
- (xi) Evaluate the effectiveness of pasture land management and planning activities for incorporation into a good practice manual on sustainable pasture land management.

**6. GIS Specialist (3 person-months)**

8. The GIS specialist will undertake the following activities:
- (i) Design, develop, test, and deploy the pasture land management information system.
  - (ii) Supervise and provide on-the-job training for national staff.
  - (iii) Design and develop a pasture land management information system for pasture land management indicators in consultation with CACILM.
  - (iv) Assist with the acquisition of remote sensing imagery and develop a database to support pasture land planning and management activities for selected geographic areas.
  - (v) Develop capacity for creating remote sensing images, GIS layers, and other types of data and for data entry, data analysis, and reporting in relation to pasture land management information.
  - (vi) Prepare annual monitoring reports on pasture land management indicators.

**7. Orchard Management Specialist (5 person-months)**

9. The orchard management specialist will engage in the following tasks:
- (i) Prepare a detailed project plan, schedule, and annual budgets in relation to the implementation and monitoring of sustainable orchard management.
  - (ii) Help the PMU (a) recruit national staff for the sustainable orchard management activities; (b) prepare terms of reference and contract service providers to carry

- out surveys and plan and supervise orchard improvement plans; and (c) allocate funds to the *aiyl okmotu* for orchard improvements.
- (iii) Supervise and provide on-the-job training for national staff.
- (iv) Work with the relevant government agencies to assess the condition of orchards and make recommendations for improved management and restocking of orchards.
- (v) Develop capacity in relevant government agencies and among project staff and/or contractors to conduct orchard management planning.
- (vi) Provide advice and oversight in relation to the allocation of funds for implementing *aiyl okmotu* orchard improvement plans.
- (vii) Design and develop an orchard monitoring system to collect data on the condition of orchards.

**8. Gender and Community Development Specialist (4 person-months)**

10. The gender and community development specialist will undertake the following tasks:
- (i) Help the PMU recruit national staff and supervise and provide on-the-job training to ensure effective implementation of the gender action and community participation plans.
  - (ii) Provide training to staff of the PMU; the MAWRPI; the Project Steering Committee; key service providers; WUA support units, oblasts, raions, *aiyl okmotu*, and WUAs and other community-based groups on the Project's gender and farmer and community participation issues and on measures to address them.
  - (iii) Identify nongovernment organizations and formal and informal community-based organizations in the Project area, such as women's groups and farmer groups, that can be used for community mobilization under the project components.
  - (iv) Monitor implementation of the community participation and gender action plans in all subproject areas and provide necessary interventions so that gender and social considerations are not neglected.
  - (v) Exchange information on a regular basis with other development partners in the project areas, such as funding agencies and nongovernment organizations, on relevant gender and community development issues, including conflicts among community members and ways to resolve them.
  - (vi) Ensure that all terms of reference and service contracts reflect provisions of the gender action and community participation plans.
  - (vii) Review reports from service providers to monitor the gender and social impacts of project components and regularly provide assessments to the PMU for necessary action.
  - (viii) Work closely with the monitoring and evaluation specialist to ensure the inclusion of gender- and poverty-related indicators; monitor the level of participation by poor farmers; and collect data disaggregated by gender, ethnicity, household income level, and other social parameters.
  - (ix) Ensure that the baseline survey, farm surveys, project reporting system, and capacity building include data and technical areas related to gender and social development issues.

**C. Reporting**

11. The team leader will report to the project coordinator. Other international consultants will report to the team leader. All consultancy team support staff will report to the team leader. The

team leader will supervise the preparation and ensure the quality of the PMU's quarterly and annual reports, but the preparation and translation of quarterly project reports will ultimately be the responsibility of the project manager. The consultancy team will not prepare separate quarterly or annual reports, but will incorporate aspects of management relating directly to the consultancy team (such as planned and actual international consultancy inputs) into the PMU's reports. The international consultancy company will, however, prepare a draft final report outlining the activities and achievements of the consultancy team 2 months before completion of the contract and a final report on completion of the contract to be submitted to ADB and the MAWRPI.

**Annex I:**  
**ADB Southern Agriculture Area Development Project**  
**– Report and Recommendation to the President**



# Report and Recommendation of the President to the Board of Directors

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Project Number: 31196  
January 2007

Proposed Loan and Asian Development Fund Grant  
Kyrgyz Republic: Southern Agriculture Area  
Development Project

Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 20 December 2006)

Currency Unit	–	som (Som)
Som1.00	=	\$0.0259
\$1.00	=	Som38.55

## ABBREVIATIONS

AADP	–	Agriculture Area Development Project
ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
ASSP	–	Agricultural Services Support Project
CACILM	–	Central Asian Countries Initiative for Land Management
DFID	–	United Kingdom's Department for International Development
DWR	–	Department of Water Resources
EMP	–	environmental mitigation and monitoring plan
EIRR	–	economic internal rate of return
FFS	–	farmer field school
FIRR	–	financial internal rate of return
GDP	–	gross domestic product
GEF	–	Global Environment Facility
GIS	–	geographic information system
GTZ	–	Deutsche Gesellschaft für Technische Zusammenarbeit (German Agency for Technical Cooperation)
ICB	–	international competitive bidding
IEE	–	initial environmental examination
ISF	–	irrigation service fee
KAFC	–	Kyrgyz Agriculture Finance Corporation
MAWRPI	–	Ministry of Agriculture, Water Resources, and Processing Industry
M&E	–	monitoring and evaluation
MOEF	–	Ministry of Economy and Finance
NBKR	–	National Bank of the Kyrgyz Republic
NCB	–	national competitive bidding
NGO	–	nongovernment organization
O&M	–	operation and maintenance
OIP	–	Onfarm Irrigation Project
ORT	–	oblast rehabilitation team
PFI	–	participatory financial institution
PLMC	–	pasture livestock and management committee
PMU	–	project management unit
PRA	–	participatory rural appraisal
PSC	–	project steering committee
SAADP	–	Southern Agriculture Area Development Project
SDC	–	Swiss Agency for Development and Cooperation
SDR	–	special drawing rights
TA	–	technical assistance
USAID	–	United States Agency for International Development
WUA	–	water user association

## GLOSSARY

oblast	– province
raion	– district
<i>aiyl okmotu</i>	– a village government body representing one or more villages.

## NOTES

- (i) The fiscal year of the Government and its agencies ends on 31 December.
- (ii) In this report, “\$” refers to US dollars.

<b>Vice President</b>	L. Jin, Operations Group 1
<b>Director General</b>	J. Miranda, Central and West Asia Department (CWRD)
<b>Director</b>	K. Matsunami, Agriculture, Environment, and Natural Resources Division, CWRD
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<b>Team members</b>	R. Everitt, Senior Natural Resources Management Specialist, CWRD H. Gunatilake, Senior Economist, Economic Analysis and Operations Support Division, Economics and Research Department L. Lahm, Senior Counsel, Office of the General Counsel S. Tanaka, Senior Social Development Specialist, Gender, Development and Civil Society Division, Regional and Sustainable Development Department

## CONTENTS

	<b>Page</b>
LOAN AND PROJECT SUMMARY	iii
MAP	ix
I. THE PROPOSAL	1
II. RATIONALE: SECTOR PERFORMANCE, PROBLEMS, AND OPPORTUNITIES	
A. Performance Indicators and Analysis	1
B. Analysis of Key Problems and Opportunities	2
III. THE PROPOSED PROJECT	
A. Impact and Outcome	7
B. Outputs	8
C. ADF IX Grant Component	15
D. Special Features	16
E. Project Investment Plan	16
F. Financing Plan	16
G. Implementation Arrangements	18
IV. PROJECT BENEFITS, IMPACTS, ASSUMPTIONS, AND RISKS	
A. Project Benefits and Beneficiaries	24
B. Financial and Economic Analyses	24
C. Environment and Social Safeguards	26
D. Community Participation and Gender	27
E. Project Risks and Sustainability	28
V. ASSURANCES	
A. Specific Assurances	29
B. Conditions for Loan Effectiveness	30
C. Conditions for Disbursement	31
VII. RECOMMENDATION	31
APPENDIXES	
1. Design and Monitoring Framework	32
2. Sector Analysis	37
3. External Assistance	40
4. Assessment of the Agriculture Area Development Project	44
5. Asian Development Fund IX Grant Component	50
6. Detailed Cost Estimates	53
7. Organization Chart/Flow of Funds	55
8. Implementation Schedule	57
9. Procurement Plan	58
10. Outline Terms of Reference for Consultants	60
11. Summary Poverty Reduction and Social Strategy	64
12. Gender and Community Participation Plans	69

SUPPLEMENTARY APPENDIXES (available on request)

- A. Detailed Project Description and Project Management Arrangements
- B. Selection of *Aiy/ Okmotu* and Water User Associations
- C. Detailed Cost Tables
- D. Proposal for Global Environment Facility Funding (under preparation)
- E. Financial Management Assessment
- F. Detailed Financial and Economic Analyses
- G. Summary Initial Environmental Examination
- H. Initial Environmental Examination
- I. Detailed Terms of Reference for Consulting Services

## LOAN AND PROJECT SUMMARY

<b>Borrower</b>	Kyrgyz Republic
<b>Classification</b>	Targeting classification: General intervention Sector: Agriculture and natural resources Subsector: Agriculture production, agroprocessing, and agribusiness Themes: Sustainable economic growth, environmental sustainability Subthemes: Developing rural areas, natural resources conservation
<b>Environment Assessment</b>	B. The summary initial environmental examination is in Supplementary Appendix G.
<b>Project Description</b>	<p>The proposed Project is Asian Development Bank's (ADB's) third project in agriculture and natural resources in the Kyrgyz Republic and adapts the concept and approach of the ongoing area-based Agriculture Area Development Project in Chui Oblast to three oblasts in the south of the Kyrgyz Republic: Batken, Jalalabad, and Osh.</p> <p>The Project focuses on the lowest level of government, that is, <i>aiyl okmotu</i>. The Project will (i) provide support for agricultural and legal advisory services by improving the capacity, technical scope, quality, and outreach of existing advisory service providers; facilitating access to existing legal services; and increasing the availability of and access to credit by farmers; (ii) increase and improve contractual arrangements between farmers and agribusinesses for input supply, machinery services, and wholesale and processing enterprises; improve agribusiness performance; increase the availability of and access to appropriate financing facilities for agribusinesses; and increase public investment in physical market infrastructure; (iii) develop water user associations (WUAs) further and rehabilitate irrigation and drainage systems in cooperation with the World Bank; and (iv) support a holistic and participatory approach to the sustainable use of pasture lands and the improvement of orchard management.</p> <p>The Project aims to integrate ongoing and planned activities and to contract available service providers for project implementation where feasible.</p>
<b>Rationale</b>	The agriculture sector continues to experience substantial adjustments in its transition to a market-oriented economy. Despite its importance to the economy and recent growth, agriculture continues to underperform, as many of the farms and agroprocessing facilities are not operating efficiently, are not profitable, and in some cases are not financially viable.

The key problems being addressed are the low productivity of land and the low profitability of agriculture. The key constraints continue to be the absence of a land market, the nontransparent use of the Land Redistribution Fund, and the poor administration and management of pasture lands; the lack of readily available and accessible agricultural inputs and the need to reorient various services, such as veterinary, machinery, and advisory and research services, to the market system and their need for further capacity development to provide effective services; the deteriorating irrigation and drainage infrastructure; the need for improved water management; and the limited access to and availability of micro and rural finance, especially for investment lending.

Under the Agriculture Area Development Project (AADP), a new concept and approach to ADB assistance in the Kyrgyz Republic was developed. This approach is holistic in addressing the key constraints and issues, integrated in terms of unifying interventions in specific geographic areas and coordinated in terms of partnerships with other projects and outsourcing to effective local service providers. Both the Government and ADB have been satisfied with the progress of the AADP and the Government has requested further adaptation of this concept and approach to the country's southern regions.

The grant component of the Project will improve the agricultural knowledge and capacity of farmers; prepare plans, maps, and invest in pastures; prepare plans and invest in orchards; and procure international and national consultants for farm development, agribusiness advisory services, irrigation and drainage rehabilitation, orchard management, and project management.

**Impact and Outcome**

The Project's expected impact is region-wide adoption of improved agricultural, orchard, and pasture management techniques. The expected outcome of the Project is a sustainable increase in land productivity and profitability.

**Project Investment Plan**

The investment cost of the project is estimated at \$31.23 million, including taxes and duties of \$2.80 million, \$3.75 million for physical and price contingencies, and \$0.52 million in interest charges during implementation. ADB will finance \$20.0 million equivalent—\$15 million equivalent from the Asian Development Fund (ADF) resources and \$5 million with an ADF IX grant. The Global Environment Facility will finance \$2.5 million equivalent, the Government, \$6.81 million equivalent, and beneficiaries, \$1.92 million equivalent.

**Financing Plan**

A loan in various currencies equivalent to SDR 9,925,000 (\$15.0 million) from ADB's Special Funds resources will be provided. The loan will have a 32-year term, including a grace period of 8 years, an interest rate of 1.0% per annum during the grace period and 1.5% per annum thereafter, and such other terms and conditions as are set forth in the Financing Agreement. The loan will meet the costs of the credit line for farms and agribusiness; the advisory services for agribusinesses; the public investment in marketing infrastructure; the irrigation and drainage infrastructure rehabilitation; the WUA technical credit; the equipment for WUA support units; and the costs of office equipment and vehicles, training, workshops and seminars, monitoring and evaluation surveys, operation and maintenance (O&M) for vehicles and equipment, support staff, and utilities for project management. The ADF IX grant of \$5 million will finance the training of trainers and farmers; the planning and mapping of and investment in pastures; the planning of and investment in orchards; the international and national consultants for farm development, irrigation and drainage rehabilitation, orchard management and project management; and the support staff and related office expenses for project management. The proposed Global Environment Facility grant of \$2.5 million will meet the costs of additional training of trainers, farmer field schools, and village advisory services; pasture planning, infrastructure, and improvement, monitoring, and capacity development for *aiyl okmotu* and pasture user groups; international and national consultants for land improvement; and equipment, vehicles, communications, support staff, workshops and seminars, monitoring and evaluation, staff training, and communications and report production for project management. The Government will provide in-kind contributions to finance taxes and duties and budget support for WUA support unit costs and off-farm irrigation and drainage system O&M costs. The WUAs will finance O&M of the rehabilitated infrastructure on completion and repay 25% of the costs of irrigation and rehabilitation construction.

**Allocation and Relending Terms**

The loan funds will be provided by the Government to the Ministry of Agriculture, Water Resources and Processing Industry as a grant except for a \$4 million equivalent credit line to be channeled through the Ministry of Economy and Finance (MOEF) to participating financial institutions. The MOEF will onlend the funds in som or US dollars. The participating financial institutions will relend to subborrowers under separate loan agreements acceptable to ADB.

**Period of Utilization**

Until 31 December 2013

**Estimated Project Completion Date**

30 June 2013

<b>Implementation Arrangements</b>	The management arrangements for the Project comprise a project steering committee, an Executing Agency, a central project management unit, and two regional offices. Various Project activities will be contracted out to local service providers.
<b>Executing Agency</b>	Ministry of Agriculture, Water Resources, and Processing Industry.
<b>Procurement</b>	The procurement of goods, related services, and civil works will be in accordance with ADB's <i>Procurement Guidelines</i> (April 2006, as amended from time to time).
<b>Consulting Services</b>	The Project will provide 2,655 person-months of consulting services comprising 96 person-months of international consultants and 2,559 person-months of national consultants. The international and national consultants will be recruited in accordance with ADB's <i>Guidelines on the Use of Consultants</i> (April 2006, as amended from time to time) using consulting firms, full technical proposals, and quality- and cost-based selection.
<b>Project Benefits and Beneficiaries</b>	<p>The benefits of the Project are expected to be increases in the productivity and profitability of farms and agribusiness. These benefits are expected to derive from the integrated implementation of activities to generate the following benefits: increased knowledge and better farming practices; increased value added and improved performance of agribusinesses; reduced waterlogging and salinity and reclaimed lands from rehabilitated irrigation and drainage infrastructure and improved water management; improved planning and management of pasture lands and orchards; and reduced land degradation.</p> <p>The Project will benefit a population of 158,500 in 31,000 households in the 3 oblasts. Project beneficiaries will include households that have an allocated land share as well as households who have only a household plot, but no allocated land share. About 58% of the beneficiaries live below the poverty line.</p>
<b>Risks and Assumptions</b>	The investment in WUA development aims to establish sustainable WUAs. The 5-year financial and O&M plans prepared by the WUAs are intended to ensure that these objectives are achievable. There is a moderate risk that WUA collection of irrigation service fees will be poor and that some WUAs will find it socially unacceptable to raise irrigation service fees. If these risks materialize, the outcome is likely to be nonrepayment of the 25% of funds to the Government rather than the collapse of WUAs depending on how the MOEF's State Development Fund enforces repayment.

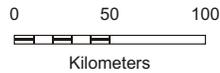
In their current form, farm advisory services are highly dependent on finance from development partners and are not financially self-sustainable. Competition between service providers partly brought about by the opportunity to bid for contacts such as those under the AADP will help drive rationalization of the farm advisory services. The key to achieving financial self-sufficiency is improved quality of services, which the Project's farm advisory service interventions seek to achieve.

The Project will invest in the rehabilitation of storage and cooling facilities and recognizes the need for financial sustainability of these facilities by requiring appropriate mechanisms for their management, financial viability, and sustainability.

The pasture land management plans will include financial projections for each of the infrastructure investments to be financed under project grants. If the investments do not generate sufficient financial incentives for the *aiyl okmotu* and communities, rehabilitated facilities and improved pastures may not be properly maintained, thus proper selection of investments based on criteria that include financial sustainability will be critical.

# KYRGYZ REPUBLIC SOUTHERN AGRICULTURE AREA DEVELOPMENT

KAZAKHSTAN



- Project District
  - Project Oblast
  - National Capital
  - Provincial Capital
  - City/Town
  - Main Road
  - Railway
  - River
  - Provincial/Oblast Boundary
  - International Boundary
- Boundaries are not necessarily authoritative.

## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on (i) a proposed loan, and (ii) a proposed grant, both to the Kyrgyz Republic for the Southern Agriculture Area Development Project.

## II. RATIONALE: SECTOR PERFORMANCE, PROBLEMS, AND OPPORTUNITIES

2. At the request of the Government of the Kyrgyz Republic, the Asian Development Bank (ADB) approved project preparatory technical assistance (TA) to prepare the Southern Agriculture Area Development Project.<sup>1</sup> The TA was carried out from August 2005 to July 2006. The participatory process for Project preparation was facilitated through regional TA on participatory approaches.<sup>2</sup> Two regional workshops and one national workshop were held for about 137 participants, of which 27% were women. The participants consisted of representatives of the central Government, local governments, farming households, and development partners; members of cooperatives and water user associations (WUAs); staff of credit unions and nongovernment organizations (NGOs); and owners of agro-enterprises. The workshops discussed the Kyrgyz Republic's experience with participatory approaches and made recommendations to be considered in designing the Project. This report is based on the TA feasibility study; the participatory process workshops; the findings of ADB workshops; and the discussions held with Government officials, the private sector, and development partners. The Project is adapting the concept and approach of the Agriculture Area Development Project (AADP)<sup>3</sup> in the Chui Oblast, which was approved in 1999 and is still under implementation. The design and monitoring framework is in Appendix 1.

### A. Performance Indicators and Analysis

3. The Kyrgyz Republic is a small, mountainous, landlocked country. The Government's structural reform program has achieved macroeconomic stability and reasonable growth. The political upheavals of 2005 have been stabilized and gross domestic product (GDP) growth is expected to be 5% in 2006 and 5.5% in 2007. Growth still remains heavily dependent on gold production. Inflation has remained below 5%,<sup>4</sup> the budget deficit has declined from 54% of GDP in 2003 to 4% in 2005, government revenues have increased from 22.2% of GDP in 2002 to 24.9% in 2005 of GDP, and the exchange rate has remained relatively stable since 2002. The Government remains within the International Monetary Fund's targets under the Poverty Reduction and Growth Facility. The Kyrgyz Republic remains highly indebted, and the Government has requested debt relief under the heavily indebted poor countries initiative, but it currently exceeds the initiative's revenue threshold of 250% by a substantial margin.

4. Poverty levels are declining. Based on per head consumption, poverty declined from 49.9% in 2003 to 45.9% in 2004 and extreme poverty declined from 17.2% to 13.4%.<sup>5</sup> During the same period, urban poverty declined from 35.7% to 28.3% and rural poverty declined from 57.4% to 55.5%; however, rural poverty continues to be significantly higher than urban poverty. Inequality is increasing, with the Gini coefficient<sup>6</sup> increasing from 0.29 in 2001 to 0.33 in 2004,

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<sup>1</sup> ADB. 2004. *Technical Assistance to the Kyrgyz Republic for Preparing the Second Agriculture Area Development Project*. Manila. The title of the Project was changed to the Southern Agriculture Area Development Project at the request of the Government.

<sup>2</sup> ADB. 2004. *Building Capacity for Participatory Approaches to Poverty Reduction in ADB Operations*. Manila.

<sup>3</sup> ADB. 1999. *Report and Recommendation of the President to the Kyrgyz Republic for the Agriculture Area Development Project*. Manila.

<sup>4</sup> Except in the first quarter of 2006, when increases in fuel prices contributed to a 6.7% inflation rate. The target for 2006 is 5.7%.

<sup>5</sup> In 2003, new poverty line indicators based on per head consumption were adopted as the official measure of poverty incidence.

<sup>6</sup> The Gini coefficient is a measure of inequality based on an index from 0 to 1, with 0 meaning everyone has the same income.

particularly in rural areas. Poverty levels also vary significantly from region to region. In addition, much of the population lives close to the margin between poor and nonpoor, resulting in a significant degree of transient poverty. Batken Oblast is the poorest province, with 77.8% of its population being poor, while Chui Oblast is the least poor, with a poverty rate of 21.7%.<sup>7</sup>

5. The agriculture sector is extremely important to the economy. It accounts for more than 33% of GDP (average for 2000–2004), 50% of employment (75% in rural areas), and 11% of exports. Of the total land area of 19.6 million hectares (ha), pasture land accounts for the largest area, 47%. Only about 7% of the country is arable land, of which about 80% is irrigated.

6. Since 1996, agricultural growth has increasingly been driven by private small farm production. Between 1996 and 2004, average yields increased substantially: 61% for vegetables, 24% for grains, 13% for cotton, and 8% for milk. During the same period, gross output increased by 55% for vegetables, 8% for grains, 95% for cotton, and 34% for milk. The share of production from state farms declined from 22% in 1995 to 6% in 2004. With the emergence of slightly more commercially oriented small private farms since 1999, the share of production from household plots declined from 65% in 1995 to 40% in 2004.

## **B. Analysis of Key Problems and Opportunities**

7. The agriculture sector continues to experience substantial adjustments in its transition to a market-oriented economy. Despite its importance to the economy and recent growth, agriculture continues to underperform, as many farms and agroprocessing facilities are not operating efficiently, are not profitable, and in some cases are not financially viable. In addressing the key problems of low productivity and profitability in agriculture, several key issues pertain to land, agricultural inputs and services, infrastructure, and finance (Appendix 2).

8. The absence of a viable land market, the nontransparent use of the Land Redistribution Fund,<sup>8</sup> and the poor administration and management of pasture lands are directly inhibiting the productivity and effective use of these lands. Most arable land is privately owned, and even though a functional lease market exists, the land sales market is largely inactive. The Land Redistribution Fund is managed by *aiyl okmotu*,<sup>9</sup> and land is mostly leased on a competitive basis. However, the transparency and competitiveness of the leasing process varies. *Aiyl okmotu* governments administer the lowest-level pastures, raion administrations administer the midlevel pastures, and oblast administrations administer the high mountain pastures. In addition, forest farms lease out pastures from the Forest Fund. The State Land Development Institute monitors pasture land use and quality. The current pasture administration and management system is not sustainable because of a lack of transparency, no effective monitoring of pasture conditions, and of investments to improve access to and the quality of pastures. Extensive land degradation caused by salinity, waterlogging, erosion, and overgrazing is also evident. Some current land management practices reflect a lack of knowledge, training, and experience.

9. Agricultural inputs and services are slowly developing, but need to be reoriented to the market system and require further capacity development to provide effective services. The supply of agricultural inputs is largely in private sector hands. While nitrogen fertilizer is widely available, other fertilizers are not. Agrochemicals are available, but the verification of origin and quality is not always satisfactory. Application equipment is often inaccurate and dangerous to the health of users. Under the former Soviet Union, the Kyrgyz Republic was an important

<sup>7</sup> Government of the Kyrgyz Republic. 2006. Country Development Strategy (2006–2010). Bishkek. Draft.

<sup>8</sup> Land Redistribution Fund comprises 25% of agricultural land held by the state and controlled by *aiyl okmotu*. It is to be used for state-run farms such as for seed and cattle breeding or allocated to individuals who did not receive their title to land in the initial allocation.

<sup>9</sup> Known locally as *aiyl okmotu*, these are the lowest level of local government and may include more than one village.

producer of seed and has the potential to multiply imported seeds for both the domestic market and for re-export, but will need to address the research institutes' limited resources for field testing, the absence of arrangements for royalty payments, the concentration of seed multiplication and distribution on a small number of large farms, and the need to adopt international measures and standards to comply with World Trade Organization requirements. The demand for inputs is also constrained by a lack of finance.

10. Smallholders account for most agricultural production, but the various services available to them have not been able to adapt to the changing farm structure. The state veterinary system has diminished because of budget cuts, and the current veterinary service does not have the staff, budget, working conditions, and facilities to fulfill the tasks associated with legislation, regulation, control, and monitoring, and private veterinary practices have not developed quickly enough to fill the vacuum. The value added to agricultural production is limited, as processing units face difficulties in securing a consistent quantity and quality of raw materials; contractual arrangements are weak; and collection, storage, and cooling facilities are poor. Machinery is generally in a poor state of repair and is inappropriate for small farms. This means that the demand for and supply of machinery services and the absence of finance further constrain investment in more appropriate machinery. The Rural Advisory Service is well established and has a national network that includes seven oblast offices and a network of raion-based advisers, but the quality of services varies between oblasts, and outreach is low at around 25% of all villages and 6% of farmers within each village. The research institutes lack clear research strategies and the resources to implement them. Farmers and the extension services perceive research to be irrelevant to farmers' needs and the link between research and extension is weak.

11. Irrigation and drainage infrastructure is in need of rehabilitation. The Kyrgyz Republic is highly dependent on irrigated agriculture, with 80% (1.1 million ha) of the 1.4 million ha of arable land being irrigated. Constraints to efficient water management exist at the national, oblast, raion, and WUA levels. WUAs are responsible for the ownership and management of onfarm irrigation systems and the Department of Water Resources (DWR) of the Ministry of Agriculture, Water Resources, and Processing Industry (MAWRPI) is responsible for off-farm drainage and irrigation. The country has 434 WUAs, and these continue to require support in relation to (i) planning and implementing operation and maintenance (O&M) programs; (ii) undertaking financial management, in particular, estimating O&M costs and setting and collecting irrigation service fees (ISFs);<sup>10</sup> (iii) managing water allocation and improving water use efficiency; and (iv) resolving the incomplete transfer of the ownership of drainage and irrigation infrastructure from *aiyl okmotu* to WUAs. WUA support units in each raion are providing training and consultancy to address these problems.

12. The WUAs have inherited dilapidated irrigation and drainage systems. More than a third of existing systems have been rehabilitated, including off-farm systems and major structures under the World Bank's Irrigation Rehabilitation Project, onfarm systems under the World Bank's Onfarm Irrigation Project (OIP), and in Chui Oblast under the AADP. Other rehabilitation is being done by the Aga Khan Foundation, Winrock International, and others. Nevertheless, a vast area still requires rehabilitation, and the DWR has identified 82 schemes serving 235,000 ha that require immediate rehabilitation.

13. The provision of agricultural finance faces both supply-side and demand-side constraints. The demand-side constraints are a result of low farm productivity and farmers' perceptions of high risk and of interest rates being excessively high. The supply-side constraints include (i) infeasible borrower applications, (ii) banks' inexperience in assessing agricultural

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<sup>10</sup> Estimates indicate that ISFs will need to increase from an average cost of approximately Som230 per ha to Som1,000 per ha to cover onfarm O&M costs.

investment loans, (iii) absence of acceptable collateral, and (iv) banks' own limited access to finance because of limited deposits.

14. Only about 5% of commercial bank lending is for agriculture, storage, and agroprocessing.<sup>11</sup> The Kyrgyz Agriculture Finance Corporation (KAFC) lends only to the agriculture sector and has a loan portfolio of \$38.2 million,<sup>12</sup> of which 8% is for agroprocessing. The Financial Company for Savings and Credit Unions has assets of \$10 million and lends to diversified borrowers, including in agriculture. The microfinance market serves approximately 102,241 borrowers and has a total outstanding loan portfolio of about \$82 million. While the Kyrgyz Republic has 139 microfinance institutions, three established microfinance institutions dominate the sector, namely, Foundation for International Community Assistance, Kompanion, and Bai Tushum, which lend approximately 85% of the microfinance institution portfolio. The microfinance sector includes 5 banks, 300 credit unions, and the KAFC. In addition, the country has two wholesale lending institutions. As of the end of 2004, agriculture accounted for only 12% of the outstanding loan portfolio of the microfinance institutions.<sup>13</sup> There is considerable unmet demand for microfinance loans in the Kyrgyz Republic, with the National Bank of the Kyrgyz Republic's (NBKR's) medium-term microfinance development strategy estimating the demand for loans to be \$24 million–\$40 million for farms and enterprises and \$14 million–\$18 million for households.

15. While the issues facing agricultural development are diverse, they are interrelated and should be addressed as far as possible in a holistic, integrated, and coordinated manner. The social accounting matrix in the World Bank's *Country Economic Memorandum 2005*<sup>14</sup> shows high intersectoral linkage multipliers for all agricultural products above 2.6, with the multiplier for livestock products (3.2-3.5) exceeding crop products (2.6-2.8).<sup>15</sup> The input supply industry multiplier is 2.7. This highlights the need for simultaneous investment in upstream and downstream sectors to take full advantage of the multiplier effects of agricultural growth.

16. The World Bank's *Agricultural Policy Update 2004*<sup>16</sup> presents a social mobility matrix for 662 households for 1999–2002. The study demonstrates the importance of agriculture in lifting those in the lowest income quintile out of poverty and concludes that poverty is transient. During 1999–2002, 54% of those in the lowest income quintile improved their income ranking, while 75% of those in the second quintile maintained or improved their income ranking. The study concluded that income mobility was driven by land reform and subsequent agricultural growth, with the lowest quintile increasing agricultural sales by 335% compared with an average of 111% and own food consumption by 71% compared with an average of 18%. However, following this impressive upward mobility, those who remained in the lowest quintile at the end of 2002 are constrained by a low agricultural asset base that limits their potential for further agricultural growth: they derive only 35% of their income from agriculture (compared with 45% for the second, third, and fourth quintiles and 40% for the fifth quintile) and spend 47% of their cash on food. As long as nonagricultural opportunities remain limited, ensuring access to land and other agricultural assets is critical for increasing the incomes and food security of those in the lowest quintile. Given the high percentage of cash income the lowest quintile spends on

<sup>11</sup> ADB. 2004. *Technical Assistance to the Kyrgyz Republic for Agricultural Strategy Formulation*. Manila (TA 4409-KGZ, approved on 12 October).

<sup>12</sup> Estimated from National Bank of the Kyrgyz Republic. 2005. *Draft Medium-Term Strategy for Microfinance Development*. Bishkek.

<sup>13</sup> National Bank of the Kyrgyz Republic. 2006. *Medium-Term Microfinance Development Strategy*. Bishkek. For further information on microfinance in the Kyrgyz Republic refer to ADB. 2006. *Beyond Microfinance: Building Inclusive Rural Financial Markets in Central Asia*. Manila.

<sup>14</sup> World Bank. 2005. *Kyrgyz Republic Country Economic Memorandum: Enhancing the Prospects for Growth and Trade*. Washington.

<sup>15</sup> These figures suggest a tight link between changes in the demand for a commodity and the size of the impact on other sectors. (Footnote 14, p. 19)

<sup>16</sup> World Bank. 2004. *Kyrgyz Republic – Agricultural Policy Update*. Washington, D.C.

food, the development of an efficient agriculture sector that can produce low-cost food is also critical for ensuring the food security of those in the lowest quintile.

17. The development of the agriculture sector is guided by the comprehensive development framework (to 2010) and the national poverty reduction strategy for 2003–2005. Further guidance is provided in various presidential decrees and addresses to the nation. According to the comprehensive development framework, priorities until 2010 are cooperative development; development of peasant farms and agribusinesses; expansion of rural credit, mortgages, and insurance; land registration; seed and cattle breeding; research and marketing; agricultural extension and veterinary services; processing and export development; improved water and pasture management; and social development of villages. The Government's strategy also recognizes the need for local government reform, including decentralization. However, the delineation of responsibilities between the central Government and local governments is not clear. Finances and local budgets are still largely centralized and local governments are underfunded.

18. Government Resolution 465 approved the agrarian policy concept of the Kyrgyz Republic to 2010 on 22 June 2004. The main objectives of the concept include (i) providing the country's population with foodstuffs and industry with raw materials on a sustainable basis, (ii) preserving the environment; (iii) ensuring food safety, (iv) promoting the marketing and export of agricultural and processed products, and (v) reducing poverty and undertaking land and agrarian reform and farm development.

19. Agricultural policy and the strategy framework are frequently revised. ADB is financing the formulation of a new strategy to 2015 and this is expected to be completed in March 2007. The key areas being addressed include: (i) improved services, (ii) agroprocessing and marketing, (iii) land market development, (iv) water resources management, (v) training and research and development, (vi) trade and tax policy, (vii) rural finance, and (viii) rural development.

20. Development assistance to agriculture and related areas is diverse in size, focus, scope, and location. A large number of aid-supported activities focus on the southern regions. Projects range from small pilot activities in selected raions to large, nationwide programs. These programs address all constraints to agricultural development, but to varying degrees and with varying levels of coordination. In recent years, efforts have been made by development partners to harmonize practices, and in March 2003, the Kyrgyz Republic was selected as a pilot country for harmonization, with the Ministry of Economy and Finance (MOEF) being appointed as the executing agency. In addition, the Government and its development partners—including the World Bank, ADB, United Kingdom's Department for International Development (DFID) of the United Kingdom, and the Swiss Agency for Development and Cooperation (SDC)—are preparing a joint country assistance strategy. The strategy is expected to be released in early 2007.

21. Annual financing of public investment by development partners in the agriculture sector rose from \$22.81 million in 2001 to a peak of \$32.07 million in 2003, and is expected to decline to \$24.70 million in 2006.<sup>17</sup> The key areas of assistance include agricultural strategy formulation and policy development (ADB, the SDC, and the World Bank); budgetary support (the European Union Food Security Program); farm privatization and land reform (the World Bank, the United States Agency for International Development [USAID], the SDC, the DFID, and ADB); financial institution development (the World Bank, ADB, German development cooperation through Deutsche Gesellschaft für Technische Zusammenarbeit [German Agency for Technical Cooperation, GTZ] and the Raiffeisen Foundation for Development Cooperatives, the USAID,

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<sup>17</sup> World Bank. 2004. *Kyrgyz Republic - Agricultural Policy Update*. Washington, DC.

Mercy Corp, and the International Finance Corporation); agricultural advisory services (the World Bank, the SDC, GTZ, and the USAID); input supply (the Swedish International Development Agency and the World Bank); agribusiness development (the USAID, the SDC, the World Bank, and Japan International Cooperation Agency); cooperative development (GTZ and the Raiffeisen Foundation for Development Cooperatives); rehabilitation of drainage and irrigation (the World Bank, ADB, the USAID, the European Union, the United Nations Development Programme, the Aga Khan Foundation, and Mercy Corp); and rural infrastructure (ADB, the World Bank, and the DFID). Appendix 3 provides further information on external development assistance.

22. According to the *2006 Annual Evaluation Review*,<sup>18</sup> project success in category A countries, including the Kyrgyz Republic, from 1990 to 1997 was 74%, above both category B countries and average performance overall. The countries that performed well included the transition economies. By contrast, agriculture projects had the worst outcomes for projects financed by the Asian Development Fund (ADF), with only 47% being rated as successful overall, but for irrigation and rural development projects the success rate exceeded 50%. The main problems identified were (i) inadequate project design, including an inadequate understanding of the problems and opportunities viewed from the perspective of beneficiaries; (ii) project complexity; (iii) weak institutions; (iv) limited budgets; (v) adverse impact of external factors; and (vi) weaknesses in project administration. Furthermore, the critical factors contributing to project success generally across ADB projects were (i) quality of project at entry, (ii) strong country ownership, (iii) flexible design and a participatory approach, (iv) ability to learn from experience and incorporate lessons into project design, (v) good supervision of project implementation, and (vi) strong project management units (PMUs) and related oversight institutions to ensure good performance and timely delivery from contractors.

23. The Project is based on the AADP, which is still ongoing. ADB annual reviews continue to rate the AADP as satisfactory. The Government is also satisfied with the concept, approach, and results to the extent that it has requested adaptation of the AADP to three oblasts in the southern part of the Kyrgyz Republic. Appendix 4 summarizes details of progress to date, including key lessons. These lessons are (i) the oblast administrations do not have the capacity to be appointed as implementing agencies, but should be represented on the project steering committee (PSC); (ii) the early establishment of a monitoring and evaluation (M&E) system is essential, and adequate staff should be deployed for this purpose; (iii) a strong management team, a sound financial management system, transparency and fairness in staff recruitment, investment in staff training early in the project, and sufficient international consultancy to support the PMU during the first 3 years of the project are essential; (iv) the general approach of contracting local advisory services and encouraging competition between service providers has improved the quality of the services provided, more intensive investment in the quality of training materials and field advisers' skills is needed; (v) the procurement procedure for the design of drainage and irrigation rehabilitation did not result in significant competition given the limited number of design companies, and in-house design capacity is preferable; (vi) the existence of well-managed, financially sustainable WUAs is critical to the rehabilitation process and the sustainability of rehabilitated systems; (vii) the scale of technical support for agribusiness development was relatively small in relation to the amount of credit finance available and the uptake of credit for investment in agribusiness development was relatively small; and (viii) the conditions for obtaining credit from the KAFC were not appropriate for all farmers and agribusinesses, and diversifying the range of financial institutions involved in credit provision would provide a more appropriate credit mechanism. Appendix 4 explains how these lessons have been incorporated into the current Project.

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<sup>18</sup> ADB. 2006. *2006 Annual Evaluation Review*. Manila.

24. The Project has benefited from ongoing ADB regional TA<sup>19</sup> supporting the development of the Central Asian Countries Initiative for Land Management (CACILM), a multicountry program extending over 10 years and involving all five Central Asian countries to systematically identify and address the most important land degradation problems in the region. The CACILM is based on national programming frameworks for sustainable land management developed for each of the five countries, and the Project is included in the Kyrgyz Republic's national programming framework as a high priority under the country's strategy for addressing land degradation. The framework identifies the need to strengthen policies and institutions and to make the complementary on-the-ground investments required both within the agriculture sector and across other relevant sectors and national development plans. The CACILM is also a framework for generating financing to support the identified priorities, and ADB is leading a consortium of bilateral and multilateral partners to mobilize such funding. In particular, the Global Environment Facility (GEF) has endorsed a first phase of projects amounting to more than \$150 million in investments, with the GEF to provide \$20 million in grant financing. The Project is included in this framework and is expected to receive \$2.5 million in GEF grant cofinancing as part of the CACILM program.

25. The area development concept recognizes the need for balanced investment to address constraints relating to agricultural production, inputs and services, infrastructure, and finance simultaneously in a clearly targeted area. The intent is to enhance productivity and profitability in a more sustainable manner through a holistic, integrated, and coordinated approach. The approach is holistic in comprehensively addressing key constraints, integrated in terms of unifying interventions in specific geographic areas, and coordinated in terms of partnership with other projects and outsourcing to effective local service providers.

26. The Project seeks to adapt the overall concept and approach of the AADP, but more investment in developing agribusinesses, promoting marketing, and diversifying participating financial institutions (PFIs) and the addition of a component to address pasture and orchard management are expected to lead to an even more successful area development project in the south. The Project addresses short-term investment needs in relation to credit and the rehabilitation of irrigation and drainage infrastructure, but also longer-term needs through investment in training, advisory services, and pasture management.

### **III. THE PROPOSED PROJECT**

#### **A. Impact and Outcome**

27. The Project's expected impact is region-wide adoption of improved agricultural, orchard, and pasture management techniques. The expected outcome of the Project is a sustainable increase in land productivity and profitability.

##### **1. Project Area**

28. The Project is located in the three southern oblasts of Batken, Jalalabad, and Osh. Of the 18 raions in these oblasts, 9 were selected based on the following criteria: (i) a large proportion of the oblast's arable land is located in the raion; (ii) the population is at least 60% rural; (iii) the extent of crops grown that are prohibited from direct investment by ADB is not substantial (e.g., tobacco); and (iv) the raions are, as far as possible, contiguous and are accessible year round. The PSC agreed to include the following raions in the project area: Batken, Kadamjay, and Leylek in Batken; Bazaar Korgon, Nooken, and Suzak in Jalalabad; Aravan, Kara Su, and Uzgen in Osh.

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<sup>19</sup> ADB. 2005. *Technical Assistance to Central Asian Countries Initiative for Land Management*. Manila.

29. In addition, some *aiyl okmotu* and WUAs were selected for inclusion in the Project during the preparation phase and the loan Fact-Finding Mission. This selection was based primarily on the need for rehabilitation of drainage and irrigation systems (Table 1). Further details are provided in Supplementary Appendix A. Based on the prioritized list of WUAs eligible for participation in the Project; about 45,000 ha were identified in 27 WUAs in 24 *aiyl okmotu* grouped into 12 area clusters of one or more WUAs, in the 9 target raions. However, this goes beyond the coverage expected under the Project of about 28,500 ha and 17 WUAs, and the final selection from the shortlisted WUAs will be carried out when project implementation starts and will include a detailed assessment against the foregoing criteria and submission to ADB for review and approval. WUAs will not be included if their irrigation infrastructure is prone to being affected by natural disasters and cannot easily be protected through modest expenditures on protective infrastructure or if rehabilitation is likely to have a serious negative environmental impact, including the dispersal of heavy metals and other pollutants into the water supply and soils.

**Table 1: Shortlisted *Aiyl Okmotu* and WUAs**

<b>Oblasts and Raions</b>	<b>Number of <i>Aiyl Okmotu</i></b>	<b>Number of Water User Associations</b>	<b>Number of Clusters</b>	<b>Area (hectares)</b>
<b>Batken</b>				
Batken	3	4	1	7,103
Kadamjay	4	4	2	7,456
Leylek	2	2	1	2,247
<b>Subtotal</b>	<b>9</b>	<b>10</b>	<b>4</b>	<b>16,806</b>
<b>Jalalabad</b>				
Bazar Korgon	1	2	1	2,519
Nooken	2	2	1	3,389
Suzak	2	2	1	5,780
<b>Subtotal</b>	<b>5</b>	<b>6</b>	<b>3</b>	<b>11,688</b>
<b>Osh</b>				
Aravan	3	4	2	5,388
Kara Su	4	4	1	7,810
Uzgen	3	3	2	3,687
<b>Subtotal</b>	<b>10</b>	<b>11</b>	<b>5</b>	<b>16,885</b>
<b>Total</b>	<b>24</b>	<b>27</b>	<b>12</b>	<b>45,379</b>

Source: Meeting with senior engineers and staff of the Department of Water Resources from Bishkek, Batken, Jalalabad, and Osh. 19 September 2006, Osh.

## **B. Outputs**

30. The Project has five components, four technical and one project management, with related outputs and activities. Outputs for each component are summarized below and a more detailed description is provided in Supplementary Appendix B.

### **1. Farm Development**

31. The Project will support agricultural and legal advisory services by (i) improving the capacity and technical scope of existing advisory service providers (output 1.1), (ii) increasing the quality and outreach of advisory services (output 1.2), (iii) facilitating access to existing legal services (output 1.3), and (iv) increasing the availability of and access to credit by farmers (output 1.4).

32. The Project will assess the situation and prepare a plan for project interventions in each village government. This assessment will (i) be undertaken with community participation; (ii) describe the current status of farms, agricultural businesses, and other agricultural

organizations; (iii) identify potential development opportunities and partner organizations; and (iv) outline a plan of Project interventions for the village government.

33. To improve the capacity and technical scope of advisory services (output 1.1), high-quality training materials will be developed to improve the technical skills of advisory staff and their capacity to deliver advice to farmers. The Project will contract national organizations with appropriate experience to (i) assess and, where necessary, upgrade existing training materials; (ii) identify new technologies to address farmers' needs and improve the sustainability of farming systems; and (iii) train the advisory service providers contracted under the Project in the delivery of new technologies and methodologies for training small farmers. All training materials used by the service providers will be approved by the contracted organization and all advisory service staff will be trained in training techniques for small farmers before the delivery of any training.

34. To increase the quality and outreach of advisory services (output 1.2), the Project will contract a suitable national organization to set up farmer field schools (FFSs) to increase the field experience of skilled trainers in crops that are particularly important to the project area, such as tree crops, vegetables, and cotton. These FFSs will involve three levels of participants: master trainers, trainers, and farmers. A master trainer from the contracted organization will train 16 trainers, divided into 8 pairs, 2 days per week for 16 weeks throughout the growing season in year 1. Simultaneously during year 1, each pair of trainers will train up to 18 farmers under the supervision of a master trainer using the same training method. FFS trainees will establish their own demonstration plots and use these to demonstrate up to two technologies. FFSs will involve 1 day of training for farmers each week throughout the growing season. In year 2, the training with the same 8 pairs of trainers continues, but is less intensive and involves new technologies. Trainers continue the FFS with the farmers from year 1 and an additional 18 new farmers join each FFS. There will be two cycles of 2 years for FFSs.

35. The Project will also finance the expansion of village advisory services to increase their outreach to more *aiyl okmotu* and more farmers within each village government and to improve farmers' skills in crop production (including tree crops), livestock production, management, finance and income diversification, integrated pest management, onfarm water management, and pasture management. The Project aims to create competition among the advisory service providers by procuring services from more than one provider and providing an incentive for improving services. The contracted service providers will provide intensive field training and train village advisers. The village advisers will be respected successful farmers in the villages who will lead groups of 10–15 farmers with common agricultural interests.

36. The Project will facilitate access to legal advisory services (output 1.3) to improve farmers' understanding of their legal rights, improve contract enforcement, and create greater confidence in legal contracts to provide a more stable climate for investment. The Project will identify farmers' legal problems, and in cases where the Project cannot solve them, farmers will be referred to the Legal Assistance to Rural Citizens Association of Lawyers. The Project will sign a memorandum of understanding with the association to provide legal services on a retainer basis and will cover the costs of advice to farmers, but not the costs of further resolution of activities provided by the association, for which farmers will be required to pay.

37. The Project will provide funds for a credit line (output 1.4) to help farmers undertake their investment needs. The credit line will be provided to financial institutions for onlending to target farmers and will include both working capital and investment finance. Several financial institutions are expected to participate in the Project. The participatory financial institutions (PFIs) will have to (i) be legally registered with the NBKR, (ii) have their accounts audited by an international audit company, (iii) adhere to the NBKR's prudential standards, and (iv) provide a business plan that is acceptable to ADB and is updated annually. A competitive process will be

followed to select appropriate PFIs and due diligence will be undertaken on all potentially qualified and interested PFIs. PFIs will be required to meet the following criteria: (i) be financially sound; (ii) have adequate credit and risk management policies, operating system, and procedures; (iii) comply with prudential regulations; (iv) have acceptable corporate and financial governance and management practices; (v) have sound business objectives and strategies and/or plans; (vi) have autonomy in lending and pricing decisions; (vii) have adequate policies, systems, and procedures for assessing and monitoring the impacts of subprojects; and (viii) have environmental screening processes acceptable to ADB. The final list of qualified microfinance institutions will be selected and agreed with ADB.<sup>20</sup>

## **2. Agribusiness Development and Marketing**

38. The Project will (i) increase and improve contractual arrangements between farmers and agribusinesses for input supply, machinery services, and wholesale and processing enterprises (output 2.1); (ii) improve agribusiness performance (output 2.2); (iii) increase the availability of and access to appropriate finance for agribusinesses (output 2.3); and (iv) increase public investment in physical market infrastructure (output 2.4).

39. The Project will facilitate and support contractual arrangements (output 2.1), including those pertaining to domestic and export marketing, by helping farmers identify, negotiate with, and conclude equitable contracts with buyers and enterprises associated with collecting, preparing, and transporting produce to buyers. Farmers will also be given the knowledge and information needed to plan their production for sale to the market. The Project will also help farmers identify strategically important processors, agricultural produce wholesalers, input suppliers, and machinery contractors (agribusinesses).

40. The Project will contract the services of qualified agencies whose qualifications and experience are acceptable to ADB to support the development of contracts between farmers or farmers' cooperatives and identified agribusinesses. Currently, the Agribusiness Competitiveness Center and the Marketing Development Service satisfy ADB's criteria. The focus will be on supporting existing informal marketing groups and marketing cooperatives, but where required, the Project will provide support for the organizational development of emergent informal marketing groups. Where more intensive support for the development of marketing cooperatives is required, the Project will provide organizational development support directly with the assistance of cooperative development projects such as the GTZ-funded Development of Trade and Service Cooperative Project and the Raiffeisen Foundation for Development Cooperatives.

41. The Project will improve agribusiness performance (output 2.2) by providing advisory services to agribusinesses serving the target farm areas. These services will involve two types of contracts: one for input suppliers and machinery-related services and one for processors and agricultural produce wholesalers. The Project proposes to contract the services of agencies with appropriate qualifications and experience, such as the Association of Agribusinessmen of Kyrgyzstan and the Agribusiness Competitiveness Center. The advisory services will make a long-term consultancy facility available to agribusinesses using national, regional, or international consultants as necessary to provide general management support, and specifically to support agribusinesses in planning and managing agribusiness investments financed by the Project. Consultancy may be provided to more than one business depending on the size and needs of the agribusiness, but in all cases each consultant will work with no more than three agribusinesses simultaneously.<sup>21</sup> Specialist short-term consultants (e.g., processing engineers) may also be provided to supplement the long-term consultants where specific support is

<sup>20</sup> The credit line for agribusinesses (output 2.3) will also be channeled through PFIs meeting the same criteria.

<sup>21</sup> The Project recognizes that the allocation of businesses to each consultant should be organized in such a way that each consultant does not support businesses competing in the same technical or geographic area.

required or to support other agribusinesses that require shorter-term TA. Agribusinesses will be required to contribute at least 5% of the cost of consultancy fees.

42. The Project will increase the availability of and access to appropriate finance for agribusinesses (output 2.3) by providing funds for a credit line to help agribusinesses implement their investment plans. The credit line will be provided to PFIs for onlending to agribusinesses and will be available primarily for investment finance, but where necessary, some funds will be provided for working capital. Part of the credit line may also be used to provide alternative forms of finance, such as equity investment in agribusinesses, subject to ADB's agreement to the terms and conditions.

43. To further support marketing activities under this component and to ensure that farmers have access to functioning storage and cooling facilities, the Project will rehabilitate existing storage and cooling facilities or construct new facilities on existing facility locations (output 2.4). Where facilities remain under state ownership, the Project aims to transfer the management of such facilities to the private sector. In cases where the *aiyl okmotu* own the facilities, prior to their rehabilitation, the relevant village government will obtain a legally binding commitment from the proposed private sector operator to (i) operate and manage the cooling and storage facility following its rehabilitation; and (ii) lease the facility from the village government for a period of at least 5 years, with the option to purchase the facility on completion of the lease term. The private sector operator will make lease payments to the MOEF's State Development Fund under an agreement on commercial terms that shall provide for lease payments in an amount sufficient to cover the commercial value of the rehabilitated facility. In cases where the facilities are currently owned by a functional cooperative organization, the organization will enter into a repayment agreement with the MOEF's State Development Fund to repay the costs of rehabilitation of the facility over a period of 7 years, with a grace period of 2 years, and to pay interest at the inflation rate for the previous calendar year as determined by the National Statistics Committee. In cases where the facilities are currently owned by a cooperative organization that is inoperative, the organization will be required either to transfer ownership back to the relevant village government or to transfer or sell the facilities to a functional marketing cooperative. Rehabilitation will then be financed in the same manner as for facilities owned by a village government (where such facilities are transferred back to a village government) or as for facilities owned by a functional cooperative (where such facilities are sold or otherwise transferred to a functional cooperative).

### **3. Irrigation and Drainage**

44. The Project will cooperate with the World Bank on development of the WUAs (output 3.1) and will directly support rehabilitation of irrigation and drainage infrastructure (output 3.2).

45. Under a memorandum of understanding between the ADB-financed AADP and the World Bank-financed OIP, the latter project has established WUAs and trained members in Chui Oblast, including for systems selected for rehabilitation by the AADP. This highly successful cooperation between ADB and the World Bank will continue under this Project. Based on agreements reached between the Government, ADB, and the World Bank, a tripartite agreement will be prepared defining how WUAs and oblast and raion WUA support units will be further developed and supported by all three parties. Each WUA support unit comprises a water management specialist, a WUA development specialist, and an engineer. The WUA support units provide consultancy and formal training for all aspects of WUA formation, organizational development, financial planning, and water management.

46. The Government currently finances 70% of the operating costs of the oblast and raion WUA support units through the DWR budget and the OIP finances 30%. However, as of January 2007, the Government will finance 100% of the operating costs of the WUA support

units and the units will be completely absorbed into the DWR. Under the World Bank-financed Water Management Improvement Project, support for training for WUA support units and WUAs will continue. ADB has agreed with the World Bank that the proposed Project will not provide any financing for the WUA support units in the Project area. Consideration may, however, be given to providing financial support to replace furniture, equipment, and some vehicles, if necessary, during the course of implementation.

47. The Project will support the rehabilitation of irrigation and drainage infrastructure (output 3.2) for selected WUAs from the 27 WUAs identified in the shortlist and expects to rehabilitate about 17 WUAs serving about 28,500 ha of irrigated land. The Project will rehabilitate onfarm systems and, to a lesser extent, off-farm systems serving those WUAs. No more than 30% of funds for irrigation and drainage rehabilitation will be used for off-farm rehabilitation.

48. The implementation arrangements for irrigation and drainage rehabilitation will be the same as those for the AADP and the OIP, with minor adjustments to reflect lessons learned. These arrangements include assessing WUA milestones, preliminary rehabilitation designs, and estimates of financial and economic feasibility; having oblast rehabilitation teams (ORTs) prepare designs with support from a contracted design company for more difficult and complex infrastructure; and contracting construction civil works companies supervised by ORT engineers.

49. A joint assessment by the PMU will be conducted for each of the shortlisted WUAs in cooperation with the WUA support units to assess their suitability for inclusion in the Project and to identify any steps that the WUAs need to take. In addition to their adherence to qualification criteria, the assessment will involve a range of factors that may affect WUAs' capacity to manage a rehabilitated system. A plan will be agreed on with WUAs to resolve any outstanding issues that need to be addressed before their inclusion in the Project.

50. Decisions concerning priorities, works required, and scale of investments will lie largely with farmers, and the Project will be responsive to their needs. A series of meetings will be held for WUA members to ensure that they understand the proposals and timetable for rehabilitation and the financial implications of repayment obligations for individual members. Consultation with WUA members and management will continue throughout rehabilitation. The final design will focus on priority interventions to bring the system back to operational condition, but will not necessarily involve complete rehabilitation. However, the scale of rehabilitation will not be less than what is required to ensure that the proposed design is technically, financially, economically, and environmentally feasible. The final design will reflect more accurate estimates of works and costs and will be subject to stringent financial and economic analyses. The final design, costs, and expected timetable for construction will be discussed and agreed with WUA members, and a formal decision will be taken to proceed with the procurement of a civil works contractor to execute the agreed rehabilitation works.

51. The Project will use the staff of the ORTs, which consist of a design engineer, a construction engineer, and a draftsman, which are currently financed by the OIP, for regular design work and construction supervision. The OIP will finance these teams until the Project becomes effective, estimated to be March 2007, at which time the Project will take over the financing. The Project will finance one additional design engineer for a minimum of 2 years to accommodate the extra design work activities and up to six university graduates to provide them with work experience. ADB has agreed with the World Bank that the position of regional engineer, currently financed by the OIP will be jointly financed by the World Bank and ADB until May 2008, when the OIP is expected to be completed. After this date, the Project will fully finance this engineer, who will manage the Project's irrigation and drainage component. In addition, a design company or companies will be contracted to provide design support to the ORTs for the more difficult and complex aspects of design and consideration will be given to using a framework agreement similar to that currently practiced under the OIP. Designs will be

supervised by the Project. Final designs will be approved by WUA management following consultation with WUA members; the State Committee on Environmental Protection and Forestry to provide environmental clearance; and oblast technical committees, which will consist of Project staff, oblast DWR staff, WUA representatives, farmer representatives, and the company responsible for the design. In addition, an international irrigation and drainage engineer will undertake an external technical review of engineering designs prior to civil works tenders. This engineer will be part of the international consulting team and will conduct reviews of each design and submit comments for ADB consideration.

52. Construction will be contracted out to qualified companies. Construction supervision will be undertaken by the construction engineers in each ORT and supported by site supervisors, who will be permanently engaged for each construction site (one per site).

53. As under the AADP and the OIP, WUAs will be required to repay 25% of construction costs under a repayment agreement to be signed before construction contracts are signed and will generally finance this repayment through increased ISFs. Each WUA, with assistance from raion WUA support unit, will be required to prepare a 7-year financial plan that includes projections for increased ISFs sufficient to cover the 25% repayment and improved O&M. The terms and conditions of agreements between WUAs and the MOEF include repayment of 25% of the costs of onfarm irrigation and drainage rehabilitation (construction costs only, not design costs) over a 7-year period from the date of completion of rehabilitation, with a 4-year grace period; interest charged on the amount to be repaid based on inflation; and the amount to be repaid defined in som. The WUAs will not bear any foreign exchange risk.

54. As under the AADP and the OIP, a technical credit will be made available to WUAs to purchase office furniture and equipment, vehicles, meters, concrete mixers, and machinery for O&M of the rehabilitated irrigation systems. The technical credit will be limited to \$40,000 per WUA, and 100% of the amount will be recovered through a repayment agreement between WUAs and the MOEF, similar to the repayment agreement for the rehabilitation of irrigation and drainage infrastructure.

#### **4. Land Improvement**

55. The Project will support a holistic and participatory approach to the sustainable use of pasture lands (output 4.1) and the improvement of orchard management (output 4.2).

56. The enabling environment for pasture management at the national level is in need of reform, and the World Bank is currently undertaking a pilot project to develop legislation and administrative arrangements for pasture management and investment as a foundation for future investments in pasture development. The Project will collaborate with this and any future World Bank projects, but will not conduct specific activities aimed at reform at the national level. The Project will design and implement pasture land interventions within the existing policy and legal framework, concentrating its efforts at building local capacity for planning and management.

57. Regulation 360 dated 4 June 2002<sup>22</sup> establishes a set of procedures for pasture allocation based on written plans for the reallocation, use, and protection of pastures to be elaborated jointly by raion and village government officials (article 9). The aim is to specify overall use and management plans within oblasts, raions, or *aiyl okmotu* based on a quantitative assessment of available pasture areas and their forage productivity. In addition, plans are to be developed for pasture rotation, water, road access, and infrastructure needs. On the basis of

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<sup>22</sup> This description of the main elements of the regulation is taken from Undeland, Asyl. 2005. Kyrgyz Livestock Study; Pasture Management and Use. World Bank. Bishkek. Unpublished report (November, p. 54).

these plans, competitive tenders are to be organized for livestock holders who wish to rent pasture land (article 10).

58. To support sustainable pasture land management (output 4.1), the Project will initially help prepare and implement pasture land management plans incorporating all three levels of pastures used by farmers from each village government. Communities will be mobilized to ensure effective participation (by both women and men) in pasture land planning and management. The Project will explore options for establishing appropriate community organizational or representation mechanisms for ensuring that the interests of pasture land users are adequately represented in the planning process and subsequent plan implementation. For example, the Project may help livestock farmers manage their own pasture resources through the formation of pasture user associations or similar groups. Capacity development will be provided to *aiyl okmotu* and community-based user groups to support the planning and management of pasture lands.

59. Community-based pasture land management plans will be prepared for pastures serving farmers in selected *aiyl okmotu* during the first 3 years of the Project. Planning will be undertaken with the full participation of communities in (i) surveying the condition of pastures; (ii) undertaking socioeconomic surveys; (iii) preparing pasture boundary maps; (iv) preparing pasture improvement plans, including pasture infrastructure rehabilitation plans; and (v) developing pasture monitoring systems. The pasture land management plans will include expected impacts and outcomes, leasing and allocation schemes, pasture improvement plans, institutional arrangements (including M&E systems), capacity development plans, budgets, and financial commitments.

60. Pasture land improvement plans will be implemented and monitored with community participation. Pasture improvements will include (i) pasture rotation schemes, (ii) investments to increase forage productivity through reseeding and weed control, and (iii) pasture infrastructure investments. Forage productivity improvements will be made through a combination of pasture rotation plans, revegetation of degraded pasture land, and enforcement of sustainable stocking rates for livestock. Village advisory services will provide improved skills training in livestock production and pasture management.

61. In consultation with the community-based pasture user groups, the Project will help *aiyl okmotu* develop investment plans and will support such plans for the first 4 years. After that time, the income generated from leasing access to pastures is expected to support plan implementation. The plans will cover phased repair and construction or reconstruction of crucial pasture infrastructure such as roads and tracks, bridges, handling facilities, and housing.

62. Both *aiyl okmotu* and pasture-user groups will be trained to improve their management and administration of pastures. *Aiyl okmotu* will receive revenues from the leasing of pastures and will be helped to set up proper administrative systems for managing these revenues and achieving transparency and accountability in handling them. The Project will also provide capacity development for managing grant funds for improving pasture land infrastructure. Such training will include financial management and M&E.

63. The Project will develop an effective monitoring system for pasture land use. The monitoring system will be based on animal production characteristics and vegetation and soil erosion criteria. It is anticipated that monitoring data will have to be collated and analyzed by one system under the Project. The pasture user groups operating in the village government pasture areas will be responsible for routine monitoring to collect data on the state of vegetation, pastures, livestock, and infrastructure. To this end, local service providers will assist and train the pasture user groups under contract to the *aiyl okmotu* during their first 4 years after establishment. Monitoring activities will be coordinated with the CACILM, which will be operating a sustainable land management information system to monitor changes in pasture land

indicators as part of the monitoring of overall changes in land degradation in the Kyrgyz Republic.

64. The pasture land management activities will generate a number of lessons, and information will be gathered using the monitoring system. To ensure effective sharing of knowledge, the Project will develop a manual on sustainable pasture land management practices. The first version of the manual is expected to be produced within 2 years of project initiation, and it will be updated at least once as project activities generate new information. The advisory services will use this manual to train pasture users.

65. The Project will support improvements to orchard management (output 4.2) by (i) developing improvement plans, (ii) addressing legal restrictions, (iii) improving leasing arrangements, (iv) restocking orchards, and (v) training farmers.

66. The Project will help *aiyl okmotu* prepare orchard management plans to be completed within 3 years of Project effectiveness. Each plan will (i) identify all government agencies and their respective responsibilities with respect to the plan, (ii) include procedures for ensuring community participation in the planning process, (iii) establish systems and procedures for allocating orchards to farmers through lease arrangements in an equitable and transparent manner, (iv) include strategies for improving orchards, and (v) incorporate investment plans.

67. There is currently a moratorium on the felling of trees, which prevents the responsible felling of unproductive trees and restocking. The Project will work with *aiyl okmotu* and relevant government agencies to identify areas where responsible felling and restocking would increase orchard productivity and to examine possible systems and procedures for assessment, approval, and monitoring of applications for felling and restocking on a pilot basis.

68. The Project will assist *aiyl okmotu* to establish improved long-term agreements with farmers for leasing orchards and to encourage proper tree management. The *aiyl okmotu* will also contract private or forest farm nurseries to supply tree and shrub planting materials. *Aiyl okmotu* will also contract forest farms or individuals to plant new stock in orchards or other areas that need to be planted. *Aiyl okmotu* will contract individuals or advisory services to train farmers leasing those areas in tree crop management.

## **5. Project Management**

69. Project management will be undertaken by a PMU. Most project activities will be conducted by contracting existing institutions to build up sustainable implementation capacity. The Project will also work collaboratively with other development partners to avoid duplication and minimize project management costs. Where national institutional capacity is limited or unavailable, international and national consulting services will be employed to strengthen technical capacity for selected activities and project management.

### **C. ADF IX Grant Component**

70. The Project's grant component includes financing for (i) international and national consultants; (ii) FFSs; (iii) farmer training and advisory services; (iv) pasture planning, training, and management; (v) orchard planning, training, and management; and (vi) vehicles, office furniture and equipment, communications, office support staff, and O&M costs for vehicles and equipment. The purposes of the grant component are to (i) train trainers and farmers; (ii) plan, map, and invest in pastures; (iii) plan and invest in orchards; (iv) provide international and national consultants for farm development, agribusiness advisory services, irrigation and drainage rehabilitation, orchard management, and project management; and (v) provide support

staff and related office expenses for project management. Appendix 5 provides further information.

#### D. Special Features

71. The Project is adapting the concept and approach of the AADP to three oblasts in the south of the Kyrgyz Republic. It is taking a holistic, integrated and coordinated approach to address fundamental constraints in moving agriculture forward and builds extensively on lessons learned from the AADP (Appendix 4).

72. Cofinancing is anticipated from the GEF. A grant from GEF Operational Program 15 on sustainable land management is proposed to enhance measures to address land improvement through a holistic and integrated approach to pasture land management and orchard improvement. ADB will submit a request for grant financing (\$2.5 million) to the GEF Council to finance additional activities. If approved, ADB will administer the GEF grant, in line with an agreement between the GEF and ADB, to improve land management and generate additional global environmental benefits. GEF financing is expected to begin in 2007.

#### E. Project Investment Plan

73. The project investment cost is estimated at \$31.23 million, including taxes and duties of \$2.80 million, \$3.75 million for physical and price contingencies, and \$0.52 million in interest charges during implementation. Table 2 summarizes cost estimates by project component and detailed cost estimates are provided in Appendix 6. Supplementary Appendix C provides detailed cost tables by project component.

**Table 2: Project Investment Plan**  
(\$ million)

Item	Amount
<b>A. Base Cost<sup>a</sup></b>	
1. Farm Development Component	4.26
2. Agribusiness Development and Marketing Component	3.94
3. Irrigation and Drainage Component	12.71
4. Land Improvement Component	2.70
5. Project Management Component	3.36
<b>Subtotal (A)</b>	<b>26.97</b>
<b>B. Contingencies<sup>b</sup></b>	<b>3.74</b>
<b>C. Financing Charges during Implementation</b>	<b>0.52</b>
<b>Total (A + B + C)</b>	<b>31.23<sup>c</sup></b>

<sup>a</sup> In mid-2006 prices.

<sup>b</sup> Physical contingencies for domestic currency costs are computed at 14.45% for irrigation and drainage infrastructure civil works; 10% for marketing infrastructure civil works; zero for civil works under the land improvement component, international consultancy, national consultant salaries, and credit; and 3% for all other costs. Price contingencies computed at and projected local currency cost escalation at 2.8% per annum for 2007 and 1.2% per annum for 2008–2013.

<sup>c</sup> Includes taxes and duties of \$2.80 million.

Source: Asian Development Bank estimates.

#### F. Financing Plan

74. The Government has requested ADB to provide an ADF loan equivalent to \$15 million and an ADF IX grant of \$5 million to help finance the Project. The loan will have a 32-year term, including a grace period of 8 years, an interest rate of 1% yearly during the grace period and 1.5% yearly after that, and such other terms and conditions as are set forth in the Financing Agreement. The financing plan is summarized in Table 3.

**Table 3: Financing Plan**  
(\$ million)

<b>Source</b>	<b>Total</b>	<b>%</b>
Asian Development Bank Loan	15.00	48
Asian Development Bank Grant	5.00	16
Global Environment Facility <sup>a</sup>	2.50	8
Government	6.81	22
Water user Associations	1.92	6
<b>Total</b>	<b>31.23</b>	<b>100</b>

<sup>a</sup> Global Environment Facility funding is subject to approval by the organization's chief executive officer.

Source: Asian Development Bank estimates.

75. The proposed ADB loan will finance 48% of the project cost and will meet the costs of the credit line for farms and agribusiness, advisory services for agribusinesses, public investments in marketing infrastructure, irrigation and drainage infrastructure rehabilitation, WUA technical credits, WUA support unit equipment, office equipment and vehicles, training, workshops and seminars, M&E surveys, O&M for vehicles and equipment, support staff, and utilities for project management. The proposed ADF IX grant will finance 16% of the project cost and will finance training of trainers and farmers; planning and mapping of and investment in pastures; planning of and investment in orchards; and international and national consultants for farm development, agribusiness advisory services, irrigation and drainage rehabilitation, orchard management, project management, and support staff and related office expenses for project management. The proposed GEF funds will finance 8% of the project cost to meet the costs of training of trainers, FFSs, and village advisory services; pasture planning, infrastructure and improvement, monitoring, and capacity development for *aiyl okmotu* and pasture-user groups; international and national consultants for land improvement; and equipment, vehicles, communications, support staff, workshops and seminars, M&E, staff training, and communications and report production for project management. The detailed proposal for the GEF grant is in Supplementary Appendix C. The Government will finance 22% of total project cost through taxes and duties, support for WUA support unit costs, and off-farm irrigation and drainage system O&M costs. The WUAs will finance 1.9% of project cost for the O&M of the rehabilitated infrastructure on completion. The WUAs will also repay 25% of the cost of rehabilitation of the irrigation and drainage infrastructure.

76. ADB has typically sought Board approval for the administration of loan or grant funds from cofinanciers only when cofinancing agreements are in place. In the case of the proposed grant funding from GEF, the full GEF proposal is being finalized and submitted to GEF together with this Report. To avoid any project delay, the Board is requested to approve the administration of the proposed GEF grant, in the amount of \$2,500,000, which is expected to be obtained subsequent to the date of Board approval. Approval of the GEF grant will be reported to the Board in accordance with standard operating procedures. If GEF does not approve financing, the farm development component will be marginally affected, with less training and fewer demonstrations; the land improvement component will be significantly reduced in scope, with no remote sensing and geographic information system (GIS) for pasture mapping, reduced infrastructure investment in pastures, reduced training for pasture users and *aiyl okmotu*, and no international pasture land management or GIS specialists; and project management inputs will be proportionally reduced.

77. Disbursements will be based on the percentages in the Financing Agreement.

## **G. Implementation Arrangements**

### **1. Project Management**

78. The project management arrangements include a PSC, MAWRPI as Executing Agency, and the PMU and two regional offices. Appendix 7 presents the organization chart.

79. Project implementation will be guided by the PSC, which will consist of the MAWRPI (chair); representatives of the Prime Minister's Office, the MOEF, oblast administrations, the State Committee for Environmental Protection and Forestry, the CACILM National Council, the private sector, the nongovernment sector, and ADB; the project manager; and the project coordinator. The PSC will (i) guide the overall policy and strategic direction of the Project, (ii) guide overall project priorities, (iii) review and evaluate project performance, (iv) review audited project accounts, (v) select consultants through the tender committee, and (vi) facilitate the coordination of activities between the Project and other projects. The PSC will meet at least twice during the inception period (4 months after project effectiveness) and at least every six months after that, when the Project is well established, to review progress.

80. MAWRPI as the Executing Agency, will (i) disburse ADB loan and grant proceeds; (ii) keep accurate and duplicate records and accounts on withdrawal applications and disbursements under the project accounts; (iii) submit progress and other reports prepared by the PMU to ADB; (iv) ensure timely submission of the Project's audited accounts to ADB; (v) serve as the focal point for ADB project review administration activities; and (vi) coordinate communication and interaction between ADB and MAWRPI, oblast administrations, and other contracted and implementation partners. A project coordinator from MAWRPI will be appointed, but will not be funded from the Project. The coordinator will oversee the Project and will report to the MAWRPI and the PSC on major issues.

81. The report on the financial management assessment of the MAWRPI (Supplementary Appendix E) concluded that while MAWRPI's budgeting and financial management is improving, it does not provide a basis for the financial management of loan projects. The financial management assessment recommends the adoption of the same financial management arrangements as under the AADP with some improvements based on lessons learned. The plan is for the Project's financial management team to be trained by the current AADP team during the initial 2 weeks of implementation. The proposed arrangements and training for financial management will provide a sound basis for accurate recording and reporting of financial information.

82. The PMU will be established in the MAWRPI and located in Osh Oblast to ensure effective implementation and management of the Project and the appropriate use of funds to produce the results anticipated under the Project. The PMU will be headed by a full time project manager who will report to the project coordinator, and will be staffed with national and international consultants. The project manager will be informed and guided by the management team, which will consist of three deputy project managers (one for each oblast), a financial manager, a regional engineer, a procurement specialist, and an M&E manager. During project start-up, PMU staff will work with relevant ADB staff to ensure effective compliance with ADB and government project rules and procedures. The PMU will establish regional offices in both Batken and Jalalabad.

83. The PMU will essentially be a contract management unit, selecting, contracting, monitoring, and remunerating local service providers. The PMU will (i) ensure that the Project is implemented in accordance with its design; (ii) ensure effective coordination of all activities and agencies involved; (iii) ensure compliance with environmental requirements and other safeguard measures; (iv) maintain appropriate accounts, including reports on withdrawal applications and disbursements; (v) manage procurement in accordance with ADB guidelines; (vi) prepare

quarterly progress and other reports in formats agreed on with ADB; (vii) monitor all contracts; (viii) work closely with selected service providers to ensure that methodologies, approaches, and management systems are appropriate and deliver the expected results; (ix) develop an effective M&E system; and (x) develop appropriate public relations procedures, including brochures and press releases.

84. The tender committee will review and evaluate all procurement proposals for consulting services, civil works, and goods. The committee will consist of the MAWRPI (chair); representatives of the MOEF, the State Committee for Environmental Protection and Forestry, and the national procurement agency; the PMU manager; the PMU procurement specialist; representatives of each project oblast; and others as deemed necessary by the chair.

## **2. Implementation Period**

85. The Project will be implemented over 6 years from July 2007. By 30 June 2013, all withdrawal applications must have been submitted, approved, and authorized. The closing date for disbursements will be 31 December 2013. The implementation schedule for the Project is shown in Appendix 8.

86. The central PMU will be established prior to Project effectiveness. The regional offices in Batken and Jalalabad will be established during the first year following project effectiveness. While implementation will initially commence in Batken, activities are expected to commence in Jalalabad and Osh within the first 12 months of project implementation.

## **3. Flow of Funds**

87. Apart from the credit line to be provided through PFIs, all loan funds will be provided to the MAWRPI in the form of a grant. The credit line will be administered under subsidiary loan agreements entered into between the Government, through the MOEF, PFIs, and by project agreements between ADB and each PFI. The MOEF has agreed to use its Credit Line Management Unit to manage the credit line. The MOEF will lend the credit line funds directly to PFIs that have been licensed by the NBKR. The MOEF will relend these funds in som or US dollars for periods of up to 15 years, with a 3-year grace period. The relending interest rate for som loans will be a variable rate based on the average inflation rate for the past year as announced by the National Statistics Office and projected inflation for the current year as announced by the NBKR. The reference rate will be reviewed semiannually. In addition, a fixed margin of 1% shall be added for administrative costs and a variable margin of no less than 1% to cover the Government's foreign exchange risks. The relending interest rate for loans in dollars will be a variable rate based on the 6-month London interbank offered rate for dollars. The rate, formula, and actual margins charged by the PFIs shall be reviewed semiannually as necessary. A minimum margin of 1% will be added to cover the Government's administrative and related costs. Following repayment by the PFIs, the funds will be relent to eligible financial institutions for a similar term.

88. Funds under the credit line will be onlent to farmers and agribusinesses as subborrowers. The subloans are anticipated to provide working capital and onfarm and business investments for the development of agricultural production and of input supply, machinery services, storage, packing, marketing, and related agribusiness and service enterprises. The subborrowers will prepare business plans and have commercially viable subprojects with adequate collateral, financial rates of return, and demonstrated repayment capacity. The financial institutions will onlend the credit line to eligible subborrowers under separate loan agreements acceptable to ADB. Subject to the procedures agreed with ADB, the financial institutions will have full authority to select subborrowers, approve subloans, and determine lending terms in accordance with their own credit policies. Subloans to subborrowers may be

made in som or dollars. The lending arrangements from financial institutions to subborrowers will be reviewed on a regular basis, as required, and the arrangements will be adjusted if necessary. ADB will approve all subloans exceeding \$20,000 and the first five subloans for each financial institution before disbursement by any such financial institution. All PFIs will submit a quarterly loan portfolio report and an annual external audit report to ADB by 30 June each year.

#### 4. Procurement

89. All ADB-financed procurement will follow ADB's *Procurement Guidelines* (April 2006, as amended from time to time). ADB will finance the procurement of vehicles, materials, and equipment as described in the procurement plan (Appendix 9). Contracts for civil works valued at \$1 million equivalent or more and contracts for goods and services valued at \$0.5 million equivalent or more, will be procured through international competitive bidding (ICB). Contracts for civil works valued at less than \$1 million equivalent may follow ICB, national competitive bidding (NCB), or limited international bidding as determined by the particular circumstances of the contract package. Contracts for goods and services, valued at less than \$0.5 million equivalent may follow NCB or limited international bidding as determined by the particular circumstances of the actual package. Contracts valued at less than \$100,000 equivalent may follow the shopping procedure. The relevant sections of ADB's Policy on *Anticorruption* (1998, as amended to date) will be included in all documents during the bidding for and implementation of the Project.

90. Before the start of NCB procurement, ADB and the Government will review the Government's procurement procedures to ensure consistency with ADB's requirements. Any necessary modifications to or clarifications of the Government's procedures will be documented in the procurement plan.

91. For the procurement of goods and services to be financed with the subloans to farmers and agribusinesses, each PFI will ensure that procurement procedures are appropriate under the circumstances, are in accordance with commercial practices acceptable to ADB, and conform to ADB's Policy on *Anticorruption*.

92. A memorandum of understanding will be agreed on between the Project and the management of the OIP and the Water Management Improvement Project for the development of WUAs and the initial services of the ORTs.

93. The rehabilitation of irrigation and drainage infrastructure will employ separate contracts for design and for civil works construction under NCB. Under the AADP and the OIP, more than 10 companies have already been prequalified. The prequalified civil works contractors may participate in new bidding provided their qualifications are evaluated again as part of bid evaluations. If new firms wish to qualify to tender, then a postqualification procedure can be adopted, whereby the criteria for qualifying will be included in the bidding documents, the lowest bid will be evaluated, and if it does not meet the criteria the qualifications of the next lowest bidder will be assessed. In addition, the bidding document and the draft contract for the first design contract and the first civil works contract will be submitted to ADB for approval. Thereafter, it is proposed to give approval following the awarding of contracts.

94. Advance action is required for consulting services for project implementation to establish the PMU, including engaging the project manager, financial management specialist, and procurement specialist. Retroactive financing of \$50,000 equivalent from the grant is necessary to cover expenditures for activities incurred prior to loan and grant effectiveness, but not earlier than a maximum period of 12 months prior to the date of signing the Financing Agreement. The advance recruitment of consultants would be carried out in conformity with ADB's *Guidelines on the Use of Consultants* (2006, as amended from time to time). The Government has been advised that approval of early recruitment of consultants does not commit ADB to approving or

otherwise financing the Project. Advance action would enable early preparation of draft documents for contracting various services required under the Project, and would require that the Government agree to finance the PMU and its staff before loan and grant effectiveness.

## 5. Consulting Services

95. The Project will provide 2,655 person-months of consulting services,<sup>23</sup> consisting of 96 person-months of international consultants (Appendix 10) and 2,559 person-months of national consultants. The international consultants and their length of service (in person-months, shown in parentheses) are as follows: team leader (27), M&E specialist (10), gender and community development specialist (4), farm and agribusiness development specialist (19), irrigation and drainage engineer (9), pasture management specialist (14), GIS specialist (3), orchard management specialist (5), and unallocated short-term consultants (5). National consultants and the length of their service (in person-months, shown in parentheses) are as follows: project manager (72), deputy project managers (216), financial manager (72), accountants (210), procurement specialist (69), lawyer (69), M&E manager (69), senior sociologist (69), environmental monitoring specialist (69), M&E specialist (69), regional engineer (48), draftspeople (90), design supervisors (180), construction supervisors (144), site supervisors (348), trainee engineers (144), senior farm development specialist (69), farm development specialists (138), senior agribusiness development specialist (69), civil engineer (69), senior pasture management specialist (69), pasture management specialists (138), and orchard management specialist (69). In addition, the Project will employ community coordinators (1,224 person-months). The international and national consultants will provide project support and capacity development for advisory services in agriculture and agribusiness, irrigation and drainage, land improvement practices, and project management (including M&E).

96. Suitably qualified local service providers will be contracted for the provision of improved training materials and training of advisory service providers; the establishment of FFSs, and village advisory services to farmers; legal advice for farmers; marketing support and contractual arrangements between farmers and agribusinesses, and agribusiness advisory services; village government pasture plans, GIS work, and pasture mapping. These contracts will be under NCB. However, where it is established that only one potential contractor has the requisite experience, the services will be procured under direct selection.

97. The international and national consultants will be recruited in accordance with ADB's *Guidelines on the Use of Consultants* using consulting firms, full technical proposals, and quality- and cost-based selection. Detailed terms of reference are in Supplementary Appendix I.

## 6. Anticorruption Policy

98. ADB's Policy on *Anticorruption* was explained to and discussed with the Government and the MAWRPI. Consistent with its commitment to good governance, accountability, and transparency, ADB reserves the right to investigate, directly or through its agents, any alleged corrupt, fraudulent, collusive, or coercive practices relating to the Project. To support these efforts, relevant provisions of ADB's policy on *Anticorruption* are included in the loan and grant regulations and the bidding documents for the Project. In particular, all contracts financed by ADB in connection with the Project will specify the right of ADB to audit and examine the records and accounts of the Executing Agency and of all contractors, suppliers, consultants, and other service providers as they relate to the Project.

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<sup>23</sup> This does not include 1,224 person-months of community coordinators who will be nominated by communities and work on a part-time basis.

99. In relation to the Project, the Government will ensure the disclosure of Project-related procurement actions, including consulting services contracts and the procurement of major equipment and civil works, in local newspapers and on the internet. Such disclosed information will include, among other matters, the list of participating bidders; the winning bidder; a reference to the tender procedures adopted; the amount of the contract awarded; and the general terms and specifications of the goods, works, or services procured. In addition, the effective financial management arrangements under the AADP will also be introduced into the Project, including direct payments by ADB for ICB contracts, and inclusion of the international consultant team leader as an observer on the tender committee, and national staff selection procedures.

## **7. Disbursement Arrangements**

100. The proceeds of the ADB loan and grant will be disbursed according to ADB's *Loan Disbursement Handbook* (2001, as amended from time to time). For consulting services and equipment following ICB procedures, loan and grant funds will be disbursed through direct payment. For civil works following NCB procedures and small expenditures related to the PMU, reimbursement and imprest fund procedures will be applied. The MAWRPI will open two imprest accounts, one for the loan funds and one for the grant funds. These imprest accounts will be established and managed according to ADB's *Loan Disbursement Handbook*. The initial deposit in the loan imprest account will not exceed estimated expenditures for 6 months of project implementation or 10% of the loan, whichever is less. The initial deposit in the grant imprest account will not exceed estimated expenditures for 6 months of project implementation or 10% of the grant, whichever is less. ADB's statement of expenditures procedure will be applied when reimbursing eligible project outlays and liquidating and replenishing the imprest accounts for individual payments of up to \$50,000. The MAWRPI will submit requests for replenishment to ADB.

## **8. Accounting, Auditing, and Reporting**

101. The MAWRPI will maintain project accounts acceptable to ADB, through the PMU, according to the provisions of the Financing Agreement and ADB's Guidelines for the *Financial Governance and Management of Investment Projects Financed by ADB*.<sup>24</sup> The MAWRPI, on behalf of the Government and through the PMU, will maintain separate records and accounts that will allow goods and services to be financed out of the loan and grant proceeds, and government financing to be identified and its use to be disclosed, following sound accounting principles. The accounts will show total expenditures by category for each project component. They will record (i) amounts spent by the MAWRPI, (ii) amounts by project component; and (iii) and amounts by loan and grant financing.

102. Independent auditors acceptable to ADB will audit these accounts and records yearly. Within 6 months of the close of the financial year, certified copies of the audit report, together with the auditor's opinion, will be submitted in English to the Government and ADB. The audit reports will include a management letter and a separate opinion on the use of the imprest accounts and statement of expenditures procedure. The Government has been advised that delays in the submission of audited financial statements may result in the suspension of loan and grant disbursements by ADB. For the external audit of accounts, the loan proceeds may finance the services of private sector auditors and the translation of their reports into English provided that (i) the auditors are qualified, capable, and acceptable to ADB; and (ii) the auditors are recruited in a manner acceptable to ADB.

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<sup>24</sup> ADB. 2002. *Guidelines for the Financial Governance and Management of Investment Projects Financed by ADB*. Manila.

103. The PFIs will be required to maintain separate project accounts for the funds spent under the Project. They must also maintain their overall accounts, audits, and financial status as required by the NBKR and ADB. The PFIs' annual accounts—comprising balance sheets, income statements, and fund flow statements at a minimum—must conform to international financial accounting standards. The annual accounts and project accounts will be audited by independent auditors acceptable to ADB. Copies of the accounts and audit reports, together with the auditor's opinion and management letter, will be submitted to ADB in English within 6 months of the close of each financial year.

104. The MAWRPI, through the PMU, will submit quarterly and annual reports to ADB. The reports will indicate the progress made, the problems encountered, the steps taken to remedy the problems, and a program of activities along with expected progress during the remainder of the implementation period. The reports will also incorporate project performance monitoring data and all relevant financial data. The reporting system will focus on outcomes, efficiency, and quality and will be consistent with international and local reporting standards, as well as with the design and monitoring framework (Appendix 1). The MAWRPI will also provide other reports and information relating to the Project as ADB may reasonably request. Within 6 months of project completion, the MAWRPI, through the PMU, will submit a project completion report to ADB that includes information on project implementation, use of the loan and grant proceeds, and accomplishments in relation to the Project's outcome and impact.

## **9. Project Performance Monitoring and Evaluation**

105. To monitor the Project's progress in achieving the planned outputs and outcome, the PMU will establish a project performance monitoring system within 6 months of project effectiveness. During project inception, a matrix of subindicators that substantiate the core performance indicators shown in Appendix 1 will be developed by the PMU in a participatory manner. Where feasible, community-based monitoring mechanisms will be developed to strengthen participation and community-level decision making. The performance monitoring system will be presented to the PSC for verification. Baseline data for the agreed indicators will be gathered and will be updated every 6 months. These data will be reported to other development partners, stakeholders, and the public. During the midterm review, the indicators will be validated and may be modified to reflect project performance more accurately.

106. The GEF-financed activities will require monitoring, evaluation, and reporting to CACILM and the GEF. Information from the project monitoring systems will feed into the CACILM national M&E system, which will cover all CACILM projects in the Kyrgyz Republic and will target four types of information: (i) land degradation and sustainable land management indicators for the design and monitoring framework; (ii) compliance with environmental and social safeguards that may be prescribed by the cofinancing agreements of the Strategic Partnership Agreement members;<sup>25</sup> (iii) project implementation, including the recording and tracking of work plan progress, all project inputs, and all activities; and (iv) project finances, including annual disbursements, contracts awarded, and annual audited financial statements.

## **10. Project Review**

107. Semiannual reviews will be conducted during the first few years of project implementation until ADB determines that an annual review will be sufficient for effective

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<sup>25</sup> Strategic Partnership Agreement for United Nations Convention to Combat Drought and Desertification Implementation in the Central Asian Countries. Current members are ADB, the Canadian International Development Agency, the United Nations Convention to Combat Desertification Project of the GTZ, the Global Mechanism, the International Center for Agricultural Research in Dry Areas, the International Fund for Agriculture Development, the SDC, the United Nations Development Programme, the United Nations Environment Programme, and the World Bank.

administration and implementation. In addition to these regular reviews, a comprehensive review of the Project will be carried out jointly by the MAWRPI and ADB after 18 months and a midterm review after 3 years of implementation. These reviews will, among other things, assess the overall performance of the Project and the need for changes in its design and implementation arrangements.

108. At least one review a year by ADB should include capacity on the review team to independently review the implementation of activities involving special technical skills, such as engineering for the irrigation and drainage rehabilitation component and pasture and livestock management for the land improvement component.

#### **IV. PROJECT BENEFITS, IMPACTS, ASSUMPTIONS, AND RISKS**

##### **A. Project Benefits and Beneficiaries**

109. The Project will increase household incomes through a sustainable increase in farm productivity and profitability. These benefits are expected to derive from the integrated implementation of activities to generate increased knowledge and better farming practices, increased value added and improved performance of agribusinesses, reduced waterlogging and salinity and reclaimed lands from rehabilitated irrigation and drainage infrastructure and improved water management, and improved planning and management of pasture lands and orchards and reduced land degradation. The Project will benefit an estimated population of 158,500 in 31,000 households in 17 *aiyl okmotu* farming 28,500 of irrigated land, 15,000 ha of rainfed land, and access to 93,000 ha of village pastures and an undefined area of midlevel and high mountain pastures in the three oblasts. The beneficiaries will include households that have an allocated land share as well as households who have only a household plot, but no allocated land share. About 58% of the beneficiaries live below the poverty line.

##### **B. Financial and Economic Analyses<sup>26</sup>**

110. The Project benefits include both quantifiable and nonquantifiable benefits. The quantifiable benefits include an increase in yields, a reduction in the area of wheat and sunflowers required to meet home consumption requirements, and a diversion of this land to increased forage and cash crop production. The nonquantifiable benefits not included in the analysis include reduced flooding of settlements and household plots from improved drainage and multiplier effects in upstream and downstream sectors resulting from the integrated nature of the project. The analyses were undertaken for two scenarios: scenario A in which livestock numbers is assumed to increase, and scenario B in which no increase in livestock numbers is assumed.

111. To facilitate the analyses, a representative farm in lowland areas is assumed to have 0.92 ha of irrigated land, 0.49 ha of rainfed land,<sup>27</sup> and access to village pastures. The economic life of the Project is assumed to be 20 years, with a 6-year implementation period. The analysis compares without and with project scenarios over a 20-year period.

##### **1. Financial Analysis**

112. The Project is financially viable for lowland farmers, yielding a net present value of incremental benefits<sup>28</sup> to all farmers of \$36.22 million or \$828 per ha. Gross margins are

<sup>26</sup> See Supplementary Appendix F for further information on the financial and economic analysis.

<sup>27</sup> Based on average farm areas in shortlisted *aiyl okmotu*.

<sup>28</sup> The financial internal rate of return cannot be calculated for the individual farm. The farm pays increased ISFs, which are paid to the WUA that then contributes to the repayment of the 25% of the cost of onfarm irrigation and drainage rehabilitation. Farmers do not make the capital investment directly themselves. Consequently there are no negative net incremental benefits in any year, and so the financial internal rate of return cannot be calculated.

estimated to increase from \$512 per ha to \$720 per ha and increased net margins from \$352 per ha to \$518 per ha. Under scenario B, without livestock benefits, the net present value is \$635 per ha.

113. Farmers' cash flow will also improve, with an annual cash margin estimated to increase from \$314 per ha to \$400 per ha. However, higher working and investment requirements under the Project increase household borrowing from \$122 to \$155 per ha and to \$377 in year 3 for additional livestock purchases. Farmers are able to generate more than sufficient incremental cash revenue to meet the borrowing repayments. Under scenario B, without livestock purchases, household borrowing requirements increase from \$122 per ha to \$156 per ha and farmers' cash flow is adequate to meet these repayments.

114. Annual irrigation scheme O&M costs during implementation are assessed at about \$0.85 million per year at the end of the implementation period, while both O&M and debt servicing costs amount to about \$1.3 million. An assumed increase in existing ISF levels of 47% (cash of \$24.80 plus labor equivalent to \$37.22 per hectare payments, and an assumed 90 percent collection rate, will yield revenues for WUAs of \$1.56 million). This will be sufficient to fully finance O&M costs and WUAs' overheads. Financial management of ISFs will be the responsibility of the WUAs. The key issues in ensuring the WUAs' financial sustainability will be (i) the level of ISFs charged per ha, and (ii) the collection rate of ISFs achieved by the WUAs from member farmers. Both these factors have been analyzed. If the ISF cash component is set at Som1,000 per ha (it is currently around Som230), WUAs can afford the O&M costs (Som600 per ha) and build enough cash reserves to fund a major O&M that will be required in 15 years to maintain full operational viability. In addition, the WUAs will need to recover at least 90% of all fees charged to ensure financial viability over time. Anything less than 90% will result in financial deficits that will accumulate quickly. For example, if the collection rate drops to 80%, the WUAs could expect to be more than \$5 million in debt within 10 years of project commencement. The mounting WUA debt and/or failure to maintain the irrigation investment will result in wastage of the Government's initial capital investment.

115. Based on the assumptions with respect to land use, yields, prices, costs, input use, and home consumption, farmers will enjoy a considerable improvement in their cash incomes. The analysis of farm household cash flow indicates that farmers will be able to meet their ISF obligations to the WUAs. With the Project, ISFs as a percentage of farms' variable costs remain low at less than 2%. The cash flow analysis demonstrates farmers' ability to pay; nevertheless, it will be the farmers' willingness to pay increased ISFs and the WUAs' ability to enforce payment that will be critical to the WUAs' financial viability.

## **2. Economic Analysis**

116. For the economic analysis, a shadow exchange rate of Som40.30 to \$1.00 was used. All costs were expressed in constant 2006 prices. Economic values for cotton and for urea fertilizer were calculated using border parity prices. A shadow wage rate conversion factor of 0.6 was used because underemployment is significant in the project area and much of the workforce is underskilled.

117. The Project is expected to generate net incremental benefits with an economic net present value of \$31.2 million, an economic internal rate of return (EIRR) of 37%, and a benefit-cost ratio of 4.06 under scenario A. Of the total incremental benefits, 36% can be attributed to crops and 64% to livestock. Scenario B demonstrates that the Project remains economically viable without any increases in livestock numbers, with an economic net present value of \$12.3 million, an EIRR of 23%, and a benefit-cost ratio of 2.53, with crops accounting for 56% of incremental benefits and livestock for 44%.

118. The sensitivity analyses examined increased cost or decreased benefit scenarios. The Project is economically robust under scenario A, and less robust but still economically viable under scenario B. The EIRR is most sensitive to a reduction in crop and livestock prices of 25% and a delay in production response for 2 years, with the EIRR falling to 22% and 24%, respectively. The EIRR has a low sensitivity to a decrease in the area under improved cropping, a decline in yields, an increase in input prices, and an increase in investment costs, with the EIRR remaining over 30% in all cases. For scenario B, the Project remains economically viable at EIRRs of 15–17% except for a 25% reduction in crop and livestock prices, which results in an EIRR of 11%.

### **3. Poverty Impact Analysis**

119. A poverty impact analysis indicates that about 39% of project benefits will go to the poor. The Project will also bring improved social benefits to the beneficiaries. The summary poverty reduction and social strategy is in Appendix 11. Potential beneficiaries fall into two groups: (i) those who have sufficient land and financial resources to reap the full benefits of improved access to the irrigation water and drainage, inputs, pastures, credit, advisory services, and output markets resulting from Project investments; and (ii) those who are very poor and who do not own allocated land but may rent land or own a household plot only, who do not have resources or access to finance to benefit from the Project to the same extent as other farmers, and who are less willing to take the risks associated with making agricultural investments.

120. The Project will undertake measures to include the poor and vulnerable farmers in project benefits. Such measures will include (i) targeting families that only have household plots; (ii) increasing the technical scope of advisory services to include topics that correspond to areas where poor farmers with limited resources have a comparative advantage, such as fruit and vegetable cultivation; and (iii) including in contracts with service providers for the promotion of village adviser services a requirement that consulting services target poor farmers who have few resources, as well as nonpoor farmers. These contracts will also require that female farmers have access to advisory services from village advisers.

## **C. Environment and Social Safeguards**

### **1. Environment**

121. ADB has categorized the Project as category B. An initial environmental examination (IEE) has been prepared. The Project is unlikely to cause any significant environmental impact. Potential impacts, mitigation measures, monitoring and capacity-building activities, and scheduling and reporting requirements are presented in an environmental mitigation and monitoring plan (EMP). The EMP clearly delineates institutional responsibilities and provides cost estimates. The monitoring program for the irrigation and drainage component includes cost provisions for regular sampling of surface water quality in the irrigation intake of and the drainage outlet from each WUA area. The EMP is to be revised, as necessary, during the inception stage of project implementation. Individual designs for rehabilitation of irrigation and drainage infrastructure (and other subprojects with a works element) are to be submitted to the appropriate raion or oblast department of environmental protection for review. These designs should include a site-specific environmental mitigation plan that is based on generic guidelines provided in the IEE, which sets out environmental safeguards and mitigation measures to be incorporated in tender documentation for design and works contracts. The Project site supervisors and the M&E team will monitor compliance with these safeguards and mitigation measures, which will be subject to inspection by the State Committee for Environmental Protection and Forestry. Supplementary Appendix G provides more information on the summary IEE and Supplementary Appendix H provides more information about the IEE.

## **2. Involuntary Resettlement**

122. The Project will only involve the rehabilitation of existing structures, such as irrigation canals, drainage channels, small pasture infrastructure (e.g., bridges), and small marketing facilities (e.g., cooling and storage facilities), and excludes any new construction. No works will be carried out during cropping seasons to avoid damage to crops. Therefore no land acquisition or displacement is envisaged.

## **3. Indigenous Peoples**

123. The three southern oblasts are dominated by the two main ethnic groups, Kyrgyz (70%) and Uzbeks (27%), with Osh having a higher Uzbek population than the two other oblasts. Minority groups include Russians (1%); Tajiks (0.6%); and others such as Tartars, Turks, and Uighurs, but they live mostly in cities. Experience from ongoing programs by other development partners shows that discrimination in project activities based on ethnicity is unlikely. Conflicts about water allocation occur across the border between the Kyrgyz Republic and Uzbekistan, but typically not within the same community across different ethnic groups. Therefore an indigenous peoples development plan will not be necessary. However, the Project's community participation plan (Appendix 12) will ensure that information about the services provided by the Project will be widely distributed among community members and that all ethnic groups will be given a fair chance to select community leaders to represent them.

## **D. Community Participation and Gender**

### **1. Participation**

124. The Project has been prepared through a series of consultations with key stakeholders. In addition to a series of focus group discussions with male and female community members in the proposed project areas, a number of meetings have been organized with government officials and WUA support unit staff regarding the criteria for WUA selection. The three workshops held in Batken, Jalalabad, and Bishkek in February 2006 involved representatives from farming households, credit unions, agriculture and agribusiness advisory service providers, local and national governments, NGOs, and development partners. The needs of farmers expressed through their participation in the workshops have been integrated into the project design. These workshops and other consultative processes also highlighted (i) the importance of the transparent selection of representatives from farmer groups and communities to participate in the agriculture training and other opportunities provided by the Project, (ii) the centrality of community mobilization through awareness raising and information campaigns for all project components, and (iii) the need for participatory M&E of WUAs' performance and of natural resource management. These aspects have been highlighted in the Project's community participation and gender action plans (Appendix 12). A participatory approach at the community level is crucial to the Project's success to prevent or reduce any conflicts about water, land, and the allocation and management of other natural resources.

### **2. Gender**

125. Women in the south account for 70% of the agricultural labor force. However, their representation and/or opportunities in agricultural extension services, inputs, processing, marketing support, and decision making related to irrigation and natural resource management are marginal. During the Fact-Finding Mission, of the six WUAs visited, five had no women council member, and one had one woman out of five members. The gender balance in training of trainers activities is also skewed. Even under current Rural Advisory Service training in the area where explicit emphasis was placed on gender equality and on addressing women's needs, only 25% of the village advisers trained were women. Other service providers that do not

pay explicit attention to gender issues have a much lower participation rate by women farmers. Furthermore, according to customary law, divorced women and daughters who are married have no rights to land ownership in the case of divorce, while no such discrimination exists in written law.

126. The experience of the ongoing AADP indicates that explicit attention to making sure that opportunities are equally available to both men and women, looking at the impacts of interventions separately by gender, and collecting and monitoring data disaggregated by gender are crucial in ensuring that the Project's benefits accrue to both men and women. The Project will implement gender-focused activities (Appendix 12) that include the following: (i) specific provisions for a gender balance in the number of trainers trained and in the types of training provided to address the needs of women specified in the performance-based contract with the agriculture training service provider; (ii) information provided to women about the availability of legal advisory services, including information related to problems with land ownership specific to women; (iii) disaggregation of key input, output, and outcome indicators by gender, wherever appropriate; (iv) encouragement of women through a community mobilization process to take on positions as village-level leaders and other representative positions in WUAs to be monitored by the WUA support units; and (v) inclusion of gender and community development specialists in the PMU.

## **E. Project Risks and Sustainability**

127. The design and monitoring framework (Appendix 1) sets out a comprehensive list of risks and assumptions for the Project.

128. The Project is expected to significantly improve both the financial sustainability of target households as demonstrated by household cash flows and the environmental sustainability of the farming system. This will come about through a shift in cropping to include higher-value crops, including forage crops, in a more balanced crop rotation (as far as possible within the constraints of small land plots). This will be brought about by improved pastures and more productive use of degraded lands as a result of investments in WUAs, advisory services, agribusinesses, *aiyl okmotu*, and pasture user groups, which are designed to bring about the financial sustainability of all these organizations as far as possible.

129. The investment in WUA development aims to establish sustainable WUAs that (i) have adequate skills to plan for O&M of rehabilitated systems, (ii) can generate sufficient income from ISFs to finance annual O&M and repayment of 25% of the cost of rehabilitation construction, and (iii) can allocate water more efficiently. The 5-year financial and O&M plans prepared by the WUAs are intended to ensure that these objectives are achievable. There is a moderate risk that the collection of ISFs by the WUAs will be poor and that some WUAs may find it socially unacceptable to raise ISFs. If these risks materialize, the result is likely to be nonrepayment of the 25% of funds to the Government rather than the collapse of WUAs depending on how the MOEF's State Development Fund enforces repayment.

130. In their current form, the farm advisory services are highly dependent on finance from development partners and are not financially self-sustainable. The services are likely to be rationalized over the coming years, with a move away from training a large number of small farmers to training village advisers, that is, successful farmers who will eventually sell their services to other farmers as independent advisers or, in a limited number of cases, find employment as advisers with cooperatives or agribusinesses. Competition between service providers partly brought about by the opportunity to bid for contracts such as those under the AADP will help drive rationalization of the farm advisory services. The key to achieving financial self-sufficiency is an improved quality of services, which the Project's farm advisory service interventions seek to achieve.

131. The Project will invest in the rehabilitation of storage and cooling facilities. The Project design recognizes the need for financial sustainability of these facilities by requiring that (i) in cases where facilities are owned by local governments, operation of the facilities is transferred to private sector operators through a lease agreement with an option to purchase the facilities upon the expiration of the lease term; and (ii) private sector operators provide cash flow projections for the facilities and investment appraisals demonstrating investments' financial viability and sustainability.

132. The pasture land management plans will include financial projections for each of the infrastructure investments to be financed under Project grants that show the costs and benefits to both the *aiyl okmotu* and the community and demonstrate that the cash flow from these investments will be sufficient to cover the recurrent expenditures necessary for maintenance. If the investments do not generate sufficient financial incentives for the *aiyl okmotu* and the community, there is a high risk that rehabilitated facilities and improved pastures will not be properly maintained. Therefore the selection of investments based on the proper criteria, including financial sustainability, will be critical.

133. Other important risks include some that are beyond the control of the Project, such as political instability, macroeconomic shocks, and commodity price shocks, and others that the Project can influence, such as corruption and a failure to recruit staff based on their skills rather than on personal connections. The problem of interference in staff recruitment is a major risk, and probably the key factor that will determine the Project's success or failure. The independence of the PMU and the MAWRPI in staff recruitment is critical and must be strictly enforced.

134. Overall, given the identified risks and associated mitigation measures, the Project is considered to be financially and economically viable and to have a high level of overall sustainability.

## V. ASSURANCES

### A. Specific Assurances

135. In addition to the standard assurances regarding, among others, accounting, auditing and anticorruption, the Government has agreed to include the following assurances in the Financing Agreement to be entered into with ADB:

- (i) The Government shall make available all counterpart funds required for the Project and on an annual basis for each fiscal year make adequate budgetary allocations required to implement the Project, including the requirements of the IEE, EMP, gender action plan, and community participation plan.
- (ii) The allotted annual budget allocations to any *aiyl okmotu* in the Project area shall not be reduced as a result of any such *aiyl okmotu* being provided with grant financing from the Project and the annual budget allocations to any *aiyl okmotu* in the Project area shall not be less than those from the previous fiscal year.
- (iii) Prior to rehabilitating any cooling and storage facilities, the *aiyl okmotu* or the cooperative, as the case may be, shall obtain a commitment from a qualified private sector operator to operate and manage the rehabilitated facilities for a minimum period of 5 years. Cooperatives owning such facilities shall enter into a repayment agreement with the MOEF to cover the cost of rehabilitating the facilities.
- (iv) Agribusinesses receiving advisory services shall be required to pay a portion of the advisory service costs, subject to a minimum amount of 5% of such costs.

- (v) The WUA support units shall be fully integrated into the DWR by the end of 2007 and the number of WUA support units in the Project area as of October 2006 shall not be decreased.
- (vi) The Government, through MAWRPI, shall adopt a series of plans, acceptable to ADB, for improving and managing pasture lands and orchards and such plans shall be completed within 3 years of the effective date. The Government shall request that the *aiyl okmotu* reinvest lease revenues derived as a result of the plans for pasture lands in an amount sufficient to finance the O&M requirements of pasture land infrastructure.
- (vii) Each irrigation and drainage rehabilitation plan shall incorporate a site-specific EMP.
- (viii) The Project shall be carried out in accordance with all applicable environmental laws and regulations, ADB's *Environment Policy* (2002), the IEE, the EMP and each site-specific EMP. Pesticides shall be selected, procured and stored in compliance with all applicable laws and requirements.
- (ix) No WUA infrastructure that (a) is prone to natural disasters, (b) will have a serious negative impact on the environment, or (c) would materially affect the quality or quantity of water flows in the Syr Darya river basin shall be financed under the Project.
- (x) If the Project causes land acquisition and resettlement impacts, the Government shall inform ADB and justify the impacts. After concurrence from ADB, the Government shall prepare a resettlement plan in accordance with ADB's *Policy on Involuntary Resettlement* (1995).
- (xi) All civil works contracts will contain provisions (a) requiring contractors to comply with (1) applicable workplace occupational safety norms, (2) applicable labor laws, (3) any resettlement plan, (b) prohibiting the use of child labor, and (c) ensuring that there is no differentiation in wages between men and women for work of equal value.
- (xii) The use of contracted child labor by farmers for activities financed by the credit line shall be prohibited.
- (xiii) The gender action plan and community participation plan shall be implemented in accordance with their respective terms.
- (xiv) All reports, drawings, maps, and historical data on soil, water and land use characteristics and related information shall be made available to the PMU.
- (xv) In the event the GEF grant funding cannot be obtained, the Government and ADB agree that (a) the following Project components and/or activities shall be reduced in scope: training and demonstrations under Component 1; infrastructure investment and training for pasture users and *aiyl okmotu* under Component 4; and project management inputs under Component 5, and (b) the following Project components and/or activities shall not be financed: remote sensing and geographical information system for pasture mapping; and provision of pasture land management specialist and GIS specialist under Component 4. Alternatively, the Government may make other arrangements necessary to cover the funding shortfall, acceptable to ADB.

## **B. Conditions for Loan and Grant Effectiveness**

136. The Government has agreed to meet the following conditions to loan and grant effectiveness: (i) the central PMU shall have been established in Osh Oblast; and (ii) the central PMU shall be staffed with a full-time project manager, financial manager, and procurement specialist, in each case acceptable to ADB.

### **C. Conditions for Disbursement**

137. The Government has agreed to meet the following conditions for any loan disbursement being made to any PFI for purposes of establishing the credit line under the Project: (i) the Government and the PFI shall have entered into a Subsidiary Loan Agreement in form and substance satisfactory to ADB; (ii) ADB and the PFI shall have entered into a Project Agreement; and (iii) ADB shall have received a satisfactory legal opinion in respect of the legality and effectiveness of the Subsidiary Loan Agreement and Project Agreement, among other matters.

### **VI. RECOMMENDATION**

190. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve:

- (i) the loan in various currencies equivalent to Special Drawing Rights 9,925,000 to the Kyrgyz Republic for the Southern Agriculture Area Development Project from ADB's Special Funds resources with an interest charge at the rate of 1.0% per annum during the grace period and 1.5% per annum thereafter; a term of 32 years, including a grace period of 8 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft Financing Agreement presented to the Board,
- (ii) the grant not exceeding \$5,000,000 to the Kyrgyz Republic, from ADB's Special Funds resources, for the Southern Agriculture Area Development Project, and
- (iii) in the event the Global Environment Facility approves grant financing not exceeding the equivalent of \$2,500,000 to the Kyrgyz Republic for the Southern Agriculture Area Development Project, the administration by ADB of such a grant in accordance with the proposal set out in paragraph 76 of this Report.

Haruhiko Kuroda  
President

2 January 2007

## DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/ Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks																																																																																
<p><b>Impact</b> Regional wide adoption in Batken, Jalalabad and Osh, of the improved agricultural, orchard and pasture management techniques introduced</p>	<p>Household incomes increase by 30%.</p> <p>Agriculture value added increased by 5% per annum.</p> <p>Incidence of land degradation maintained or reduced.</p>	<p>Regional statistics</p> <p>Government reports</p>	<p><b>Assumptions</b> Political and macro economic situation stable.</p> <p>Relative input / output commodity prices stable.</p>																																																																																
<p><b>Outcomes</b> Sustainable increase in land productivity and profitability</p>	<p>Yields on target farms increases as follows:</p> <table border="1" data-bbox="402 642 1029 968"> <thead> <tr> <th colspan="2"></th> <th colspan="3">Irrigated</th> </tr> <tr> <th></th> <th>Unit</th> <th>Without</th> <th>With</th> <th>% change</th> </tr> </thead> <tbody> <tr> <td>Wheat</td> <td>T/ha</td> <td>2.6</td> <td>4.4</td> <td>25</td> </tr> <tr> <td>Maize</td> <td>T/ha</td> <td>4.3</td> <td>6.3</td> <td>25</td> </tr> <tr> <td>Sunflower</td> <td>T/ha</td> <td>1.3</td> <td>1.9</td> <td>25</td> </tr> <tr> <td>Cotton</td> <td>T/ha</td> <td>1.8</td> <td>3.8</td> <td>25</td> </tr> <tr> <td>Tomato</td> <td>T/ha</td> <td>33.0</td> <td>41.3</td> <td>25</td> </tr> <tr> <td>Lucerne Hay</td> <td>T/ha</td> <td>10.0</td> <td>12.0</td> <td>0</td> </tr> <tr> <td>Milk (lactation cows)</td> <td>L/lactation</td> <td></td> <td>1,893</td> <td>37</td> </tr> <tr> <td>Apricots, dried</td> <td>T/ha</td> <td>5.5</td> <td>6.0</td> <td>20</td> </tr> <tr> <td>Apples</td> <td>T/ha</td> <td>2.0</td> <td>22.0</td> <td>10</td> </tr> </tbody> </table> <table border="1" data-bbox="402 1014 1029 1167"> <thead> <tr> <th colspan="2"></th> <th colspan="3">Rainfed</th> </tr> <tr> <th></th> <th>Unit</th> <th>Without</th> <th>With</th> <th>% change</th> </tr> </thead> <tbody> <tr> <td>Wheat</td> <td>T/ha</td> <td>1.5</td> <td>1.9</td> <td>25</td> </tr> <tr> <td>Sunflower</td> <td>T/ha</td> <td>0.8</td> <td>0.9</td> <td>10</td> </tr> <tr> <td>Lucerne</td> <td>T/ha</td> <td>6.0</td> <td>6.6</td> <td>10</td> </tr> </tbody> </table> <p>Soil erosion and salinity decline on target arable land.</p> <p>Carrying capacity of pastures is at least maintained at current levels on target pasture land or will increase.</p> <p>Area of agriculturally productive arable, pasture land and orchards in the target area is maintained or increased.</p> <p>Gross margins increase about 40% from about \$512 to \$720 per hectare.</p> <p>Cash margin of target farms increases about 30% from \$314 to \$400 per 4 hectare.</p> <p>75% of targeted farms and agribusinesses adopt new techniques and practices.</p> <p>Beneficiaries include 28,500 households and 158,500 people.</p>			Irrigated				Unit	Without	With	% change	Wheat	T/ha	2.6	4.4	25	Maize	T/ha	4.3	6.3	25	Sunflower	T/ha	1.3	1.9	25	Cotton	T/ha	1.8	3.8	25	Tomato	T/ha	33.0	41.3	25	Lucerne Hay	T/ha	10.0	12.0	0	Milk (lactation cows)	L/lactation		1,893	37	Apricots, dried	T/ha	5.5	6.0	20	Apples	T/ha	2.0	22.0	10			Rainfed				Unit	Without	With	% change	Wheat	T/ha	1.5	1.9	25	Sunflower	T/ha	0.8	0.9	10	Lucerne	T/ha	6.0	6.6	10	<p>Annual Project Farm Survey</p> <p>DWR</p>	<p><b>Assumption</b> Farmers shift from subsistence to increased commercial agriculture.</p> <p>Farmers use improved services and infrastructure and adopt improved farming practices.</p> <p><b>Risk</b> Kyrgyzstan reported problems with governance, transparency, and corruption may adversely affect Project implementation and outcomes.</p>
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<p><b>Outputs</b> <b>1. Farm Development Component</b> 1.1 Improved capacity and technical scope of existing advisory service providers</p>	<p>All advisory service staff are trained in the delivery of the training material and in training methods appropriate for small farmers.</p>	<p>PMU contract monitoring</p>	<p><b>Assumption</b> Advisory services willing to cooperate with Advisory and Training Center,</p>																																																																																

Design Summary	Performance Targets/ Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
<p>1.2 Increased quality and outreach of advisory services.</p> <p>1.3 Facilitate access to existing legal services</p> <p>1.4 Increased availability and access to credit by farmers</p>	<p>96 trainers graduate from farmer field schools.</p> <p>750 village advisors trained.</p> <p>10,800 additional farmers access advisory services.</p> <p>4,200 additional poor and very poor farmers (disaggregated by gender) access advisory services.</p> <p>Increased use of legal services by farmers and agribusinesses to resolve disputes.</p> <p>Increased percentage of legal disputes satisfactorily resolved.</p> <p>The number of legal disputes decline.</p> <p>Repayment rate greater than 97.5%.</p> <p>FIRR on the investment not less than 12%.</p> <p>Increased percentage of farmers, including poor and women, accessing finance.</p>	<p>PMU contract monitoring</p> <p>Rapid survey</p> <p>PMU contract monitoring</p> <p>Rapid survey</p> <p>PMU contract monitoring</p> <p>Rapid survey</p> <p>Socio-economic survey</p> <p>LARC reports</p> <p>Rapid survey</p> <p>Socio-economic survey</p> <p>Financial institutions quarterly reports</p> <p>Rapid survey</p> <p>Socioeconomic survey</p>	<p>the Center Asian Mountain Partnership or other similar service providers.</p> <p><b>Assumption</b> Advisory services provided by trainers will be accepted by farmers and result in productivity improvements.</p> <p><b>Assumption</b> Sufficient number of financially viable credit applications with adequate collateral required by financial institution.</p> <p><b>Assumption</b> Financial institutions expand sufficiently to serve all target project areas.</p>
<p><b>2. Agribusiness Development and Marketing Component</b></p> <p>2.1 Increased and Improved contractual arrangements between farmers and agribusiness</p>	<p>2,000 farmers secure new contracts with input supply, machinery services, wholesale and processing agribusinesses.</p> <p>38 input suppliers or machinery contractors secure new contracts with their suppliers and/or buyers with improved terms of contract.</p> <p>12 processors or agricultural produce wholesalers secure new contracts with their buyers.</p> <p>90% of contractual arrangements are complied with by both parties.</p>	<p>PMU contract monitoring</p> <p>Market survey</p>	<p><b>Risk</b> Either party or a contract defaults.</p>

Design Summary	Performance Targets/ Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
<p>2.2 Improved agribusiness performance</p> <p>2.3 Increased availability and access to appropriate finance for agribusinesses</p> <p>2.4 Increased public investment in physical market infrastructure</p>	<p>38 input suppliers and/or machinery services contractors achieve improvements in business performance targets.</p> <p>12 processors or agricultural produce wholesalers achieve improvements in business performance targets.</p> <p>Repayment rate greater than 97.5%.</p> <p>FIRR on the investment not less than 12%.</p> <p>Repayment rate on leases greater than 97.50%.</p> <p>FIRR to the lessee of not less than 12%.</p>	<p>PMU contract monitoring</p> <p>Market Survey</p> <p>Financial statements</p> <p>Quarterly reports from financial institutions</p> <p>PMU monitoring</p> <p>Agribusiness financial statements</p> <p>Financial audits</p> <p>PMU monitoring</p> <p>Beneficiary contact monitoring</p>	<p><b>Assumptions</b> Financially viable investment opportunities can be identified.</p> <p>Sufficiently strong cooperatives and agribusinesses can be identified as partners.</p> <p><b>Assumptions</b> Financially viable opportunities for investment can be identified.</p> <p>Sufficient private sector interest in leasing facilities.</p>
<p><b>3. Irrigation and Drainage Component</b></p> <p>3.1 Improved WUA management</p> <p>3.2 Rehabilitated irrigation and drainage infrastructure</p>	<p>At least 17 legally established WUAs.</p> <p>All WUAs increase service fees and collection rates to ensure annual operation and maintenance plans are effectively implemented.</p> <p>WUA increase efficiency of water use and water management so that (i) an increased percentage of water users are receiving reliable irrigation water; (ii) the volume of water delivered to farm plots is satisfactory for crops grown; and (iii) the percentage of water users satisfied with WUA managerial and operational performance increases.</p> <p>Increased participation of women in WUA councils, directorate, and committees.</p> <p>Off farm and onfarm drainage and irrigation infrastructure serving at least 28,500 ha in at least 17 WUAs is successfully rehabilitated.</p>	<p>WUA Support Unit reports</p> <p>WUA water measurements</p> <p>Participatory survey</p> <p>Beneficiary contact monitoring</p> <p>PMU contract monitoring and reports</p> <p>PMU quarterly progress reports</p>	<p><b>Assumptions</b> The Government makes continuing and sufficient annual budget allocations for O&amp;M of off-farm drainage and irrigation systems.</p> <p>Farmers willing to pay increased irrigation service fee.</p> <p><b>Assumption</b> Rehabilitated irrigation and drainage systems are properly managed by WUAs to equitably serve all farmers.</p>

Design Summary	Performance Targets/ Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
<p><b>4. Land Improvement Component</b></p> <p>4.1 Sustainable Pasture Land Management</p> <p>4.2 Improved orchard management</p>	<p>Appropriate institutional framework with designated roles and responsibilities agreed and formalized.</p> <p>Revenue sharing arrangements amongst oblast, raion, and <i>aiyl okmotu</i> established.</p> <p><i>Aiyl okmotu</i> pasture lease revenues reinvested in pasture land improvements.</p> <p>Integrated, coordinated and participatory planning process established and implemented.</p> <p>Communities mobilized to ensure effective participation (by both women and men) in pasture land planning and management.</p> <p>Community based pasture land management plans will be prepared for pastures serving farmers in selected <i>aiyl okmotu</i>. In these selected <i>aiyl okmotu</i>: (i) pasture conditions are surveyed and pasture maps prepared; (ii) pasture improvement plans prepared; (iii) pasture land management committees are established and trained; (iv) pasture monitoring system is established; and (v) pasture infrastructure rehabilitation plans are prepared.</p> <p>Pasture land management plans implemented and monitored with participation of the community.</p> <p>In selected <i>aiyl okmotu</i>: (i) legal restrictions relating to tree planting and tree crop harvesting resolved; (ii) improved leasing arrangement for leasing orchards; (iii) orchards planted with new stock; (iv) farmers trained in orchard and tree crop management.</p>	<p>Decree on institutional framework and responsibilities</p> <p>PMU contract monitoring</p> <p><i>Aiyl okmotu</i> financial audits</p> <p>Approval by relevant government agency</p> <p>PMU monitoring</p> <p>Orchard monitoring report</p> <p>Beneficiary contact monitoring</p>	<p><b>Assumption</b></p> <p>Plans are flexible and responsive to the ongoing and changing needs of communities, managers and the environment.</p> <p>Stakeholders are willing to participate in pasture and orchard planning with <i>aiyl okmotu</i>.</p> <p><b>Assumptions</b></p> <p>Rights and responsibilities of respective land leases are respected by Government agencies.</p> <p><i>Aiyl okmotu</i> develop sufficient capacity to prepare and implement plans.</p> <p>Willingness of forest farmers to cooperate with <i>aiyl okmotu</i> pasture and orchard planning group.</p> <p>Willingness of raion and oblast administration to delegate responsibility for orchard management to <i>aiyl okmotu</i>.</p> <p>Legal restrictions can be overcome.</p>

Design Summary	Performance Targets/ Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
			<b>Risk</b> Either party to a contract defaults.
<b>5. Project Management</b> 5.1 Efficient and effective project management system established and operational.	Project implemented on schedule.  Quarterly and annual work plans and reports submitted within one month of the relevant period.  Annual audit, financial statements and management letter submitted by 30 June each year.	PMU reports	

Activities	Inputs
1.1.1 Undertake situation assessment and prepare <i>aiyl okmotu</i> plans. 1.1.2 Contract and monitor improvement of training materials. 1.2.1 Contract for expansion of village advisory services. 1.2.2 Contract and monitor implementation of field schools. 1.3.1 Identify legal service needs. 1.3.2 Sign memorandum of understanding with Legal Assistance to Rural Citizens. 1.4.1 Identify, select, contract and monitor financial institutions. 2.1.1 Identify and support contract between farmers and agribusinesses. 2.2.1 Contract and monitor delivery of advisory services to agribusinesses. 2.3.1 Identify, select, contract and monitor financial institutions. 2.4.1 Identify facilities and private sector interest in market infrastructure. 2.4.2 Facilitate agreements and contract arrangements between parties. 2.4.3 Monitor the facilities and arrangements. 3.1.1 Monitor training of WUAs provided under World Bank projects. 3.2.1 Undertake joint assessment of WUA and rehabilitation needs. 3.2.2 Prepare design for rehabilitation works. 3.2.3 Engage contractor and supervise civil works. 4.1.1 Mobilize communities. 4.1.2 Conduct socioeconomic survey and survey of pasture conditions. 4.1.3 Facilitate preparation of pasture land management plans. 4.1.4 Implement pasture management plans and monitor effects based on M&E system. 4.2.1 Assist in preparation of orchard management plans. 4.2.2 Assist <i>aiyl okmotu</i> in establishing and monitoring lease agreements with farmers. 5.1.1 Recruit international and national consultants. 5.1.2 Establish financial management system. 5.1.3 Prepare procurement documents for approval, tender and evaluation. 5.1.4 Establish monitoring and evaluation system. 5.1.5 Conduct baseline and regular surveys. 5.1.6 Submit quarterly progress and other required reports.	ADB Loan: \$15.00 million ADB Grant: \$5.00 million GEF Grant : \$2.50 million Government: \$6.81 million WUAs: \$1.92 million

ADB = Asian Development Bank; DWR = Department of Water Resources; FIRR = financial internal rate of return; GEF = Global Environment Facility; M&E = monitoring and evaluation; O&M = operation and maintenance; PMU = project monitoring unit; WUA = water users association.

## SECTOR ANALYSIS

1. This appendix focuses in more detail on the three project oblasts of Batken, Jalalabad, and Osh.

### A. Population

2. The population of the southern part of the Kyrgyz Republic accounts for more than 47% of the country's total population. The population in the south totals 2.6 million people, of which 47% reside in Osh Oblast, 36% in Jalalabad Oblast, and 17% in Batken Oblast. More than 77% of the population in these three oblasts is rural, compared with 65% nationally. The percentage of the population living in rural areas is even higher for the project raions.

3. In terms of poverty, the Ministry of Labor and Social Protection divides the population into four household categories: nonpoor (43%), poor (19%), very poor (34%), and extremely poor (37%). These poverty levels are based on monthly household incomes determined using household social passport data.<sup>1</sup> Of the 543,400 households living in the south, 32% live in highland villages, of which 25% are extremely poor, 22% are very poor, and 11% are poor. Of the 68% of households living in the lowlands, 19% are extremely poor, 18% are very poor, and 11% are poor.<sup>2</sup> The percentage of poor, very poor, and extremely poor differs by region in the south, with Batken having the highest number of extreme poor as a percentage of all poor.

### B. Agriculture

4. The availability of agricultural land per capita of rural population is lower in the three target oblasts than nationally by 36% to 40%. Similarly, the Land Redistribution Fund is markedly smaller in the south: nationally, the Land Reallocation Fund is 0.11 hectares (ha) per capita of rural population available, while in the south there is only 0.07 ha per capita of rural population in all three oblasts, about 36% less than the national average. Land use is further complicated by substantial land fragmentation into smaller plots.

5. Approximately 80% of all arable land in the country is irrigated, but in the three southern oblasts, the figures are 48% in Batken, 53% in Jalalabad, and 62% in Osh. In addition, in Batken not only is the availability of irrigated land 70% of the national average, but Batken is less suitable for agricultural production because of the higher elevation, the shorter cropping season, and the harsh climatic conditions.

6. The south is dominated by small subsistence farmers. While significant differences between farms are apparent, the landholding of the average lowland farmer typically consists of 0.60 ha of irrigated arable land and 0.29 ha of rainfed arable land, along with access to an average of 3 ha of village pasture.<sup>3</sup> A typical lowland farm uses at least 75% of its irrigated land to produce cereal crops (for domestic use), with the remaining 25% allocated to sunflower production (5%) for home-consumed cooking oil, cotton (12% for cash and by-products for feeding livestock), vegetables (5% for cash), and fruit trees (3% for cash). In addition, six sheep

<sup>1</sup> Social passport data is included at the level of the *aiyl okmotu*. The monthly incomes of extremely poor households are less than Som140, of very poor households are between Som140 and Som400, and of poor households between Som400 and Som600.

<sup>2</sup> These figures should be treated with caution. Anecdotal evidence suggests cases of people unfairly influencing the allocation of social passports. In addition, data problems with the classification of poor, very poor, and extremely poor households have resulted in duplication between categories.

<sup>3</sup> This is an indicative figure based on the total amount of village pasture in the project area divided by the number of households in the project area. Farmers have to lease village pastures from the *aiyl okmotu*. They also have access to midlevel and high mountain pastures if they can secure a lease agreement with raion and oblast administrations, respectively.

might be fattened on concentrates, crop waste, and fodder. Rainfed arable land is used for cereals and forage production: 55% for cereals, 10% for safflower or other oil crops (for oil), and 35% for forage (including 30% for sheep and 5% for dairy cows). Farms' cash income, after household and livestock needs, is around \$346 annually. Nonfarm income typically amounts to a further \$500 per year. Farm expenditure accounts for around \$304 annually. Household expenses (additional food, nonfood items, education, health, social obligations, and additional livestock fodder purchases) typically account for a further \$690 per year. Thus, households have a cash deficit in most years and accumulate debt. They require financing, which reaches a seasonal peak of \$179 per year.

### C. Crop Production and Marketing

7. A significant decrease in wheat areas, and corresponding increases in cash crop areas (notably cotton and oilseeds), has been apparent throughout the project area. This suggests that small farmers may slowly be moving out of subsistence production, possibly in response to investments in irrigation infrastructure, agricultural services, and finance, or possibly because of an increased availability of wheat flour in shops.

8. In Batken Oblast, wheat is by far the dominant crop in all raions—along with maize and potatoes in upland areas and relatively small quantities of rice—and is used primarily for home consumption, with bran being fed to livestock. Cash crops include oilseed crops (partly for home consumption); fruits (particularly apricots sold dried and cherries sold fresh to the Russian market); vegetables; and small areas of rice, cotton, and tobacco (sold under contract to tobacco companies). A small decline in wheat areas and an increase in cash crops have been evident over the last 4 years.

9. In Jalalabad Oblast, wheat and maize mainly for home consumption are important, but cotton and oilseed production are more important sources of cash than in the other two oblasts, while fruit production is less important. Small areas of vegetables, rice, and tobacco also provide cash income. The wheat area has decreased sharply in the last 4 years, with corresponding increases in cotton and/or oilseed crop production depending on the raion. The pistachio and walnut forests are a resource unique to Jalalabad and are of international significance. The livelihoods of people around these forests are strongly linked to the forests.

10. In Osh Oblast, wheat is the dominant crop, which along with maize is used mainly for home consumption. Oil crops and cotton are the main cash crops. Other cash crops are fruit, vegetables, and rice grown in small areas. Potatoes are important in upland areas. The cotton area has increased by almost 30% over the last 4 years.

### D. Livestock Production

11. Livestock numbers have increased since 2000. While official data suggest that livestock production per head is high, the data appear to be unrealistic. Official data indicate that lambing percentages in 2003 were 86% in Batken, 94% in Jalalabad, and 93% in Osh. The calving percentages in 2003 were 102% in Batken, 91% in Jalalabad, and 98% in Osh. Given the animal health and nutrition issues farmers in the Kyrgyz Republic face, including in the three southern oblasts, these numbers appear to be unrealistically high. Milk yields typically range between 1,000 and 1,500 liters per lactation and are low.

12. With the fragmentation of administration between oblast administrations, raion administrations, *aiyl okmotu*, and forest farms, the centralization of pasture monitoring in relation to effective grazing management in the south has not been achieved, resulting in overgrazing of the lower pastures and undergrazing of the higher pastures. A complicating factor is the large number of animals from the Fergana Valley coming into the southern oblasts for summer

mountain grazing, which makes stocking rate calculations of limited usefulness. With the introduction of price differentiation (payments for summer grazing for livestock from neighboring countries are around eight times more than those for local livestock), evasion of payment further complicates pasture management and animal health issues.

## E. Irrigation and Drainage System

13. Table A2.1 shows irrigated areas and salinity levels and table A2.2 shows the incidence of waterlogging.

**Table A2.1: Proportion of Irrigated Land and Percentage of Salination, Selected Oblasts, 2005**

Oblast	Total Area Irrigated (ha)	Total Area Salinated (ha)	Percentage of Irrigated Area Salinated	Percentage of Irrigated Area Moderately to Strongly Salinated
Batken	57,505	3,783	6.6	2.9
Jalalabad	128,959	2,865	2.2	0.2
Osh	130,776	2,328	1.8	0.2

Source: Institute of Irrigation data.

**Table A2.2: Groundwater Depth Classes as a Percentage of Area Irrigated, Selected Oblasts, 2005**

Oblast	0–1.0	0–1.5	0–2.0	2.0–3.0	3.0–5.0	>5.0
Batken	0.7	1.3	2.3	2.3	2.7	92.7
Jalalabad	0.3	2.9	5.8	2.5	5.0	86.8
Osh	1.0	2.3	5.0	2.1	2.0	90.9

Source: Institute of Irrigation data.

## F. Advisory Services

14. The Rural Advisory Service provides services in all three oblasts, but its coverage is limited to less than 6% of farmers. The three oblast Rural Advisory Service offices are independent and have different organizational structures and approaches. The Training and Extension Service Center is an alternative service provider, which works in Osh Oblast, but is considering extending its services to Batken Oblast. The Association of Agribusinessmen of Kyrgyzstan also provides advisory services to clients of its member agribusinesses (mainly input suppliers) and is encouraging its agribusiness clients to provide advisory services to farmers directly.

## G. Financial Institutions

15. The Kyrgyz Agricultural Finance Corporation has branches and sub-branches through the project area and is likely to be the main source of finance for small farmers. The south has 156 credit unions, a total of almost 14,000 members, and an active portfolio totaling \$8.38 million. The three established microfinance institutions—Bai Tushum, Kompanion, and Foundation for International Community Assistance—all have branches in Osh and serve part of the project area. At least three emerging microfinance institutions—Agro Kredit Plus, Mehkr Shavkat, and Oxus—serve small parts of the project area, and are expected to expand.

## EXTERNAL ASSISTANCE

1. A number of entities have provided external assistance to the Kyrgyz Republic. The Asian Development Bank (ADB) has provided a series of technical assistance (TA) activities to the Ministry of Agriculture, Water Resources, and Processing Industry (MAWRPI) to support agricultural strategy formulation and policy development.<sup>1</sup> The Swiss Agency for Development and Cooperation (SDC) undertook a policy support project that assisted with the preparation of MAWRPI's agrarian policy concept until 2010. The European Union Technical Assistance for Commonwealth of Independent States provided support for the strategy plan for the agriculture and food sector, which started in 1994, and the Regional Agricultural Reform Project, which started in 1996. The World Bank has had a major influence on agricultural strategy and policy through its agriculture sector projects and published reports on agriculture sector reviews, strategy, and policy.<sup>2</sup>

2. The European Union Food Security Program, which finances the entire MAWRPI budget except for salaries through conditional budgetary support, has initiated a series of reorganizations and downsizing of the MAWRPI since the start of the program in 1997.<sup>3</sup> The program has also established systems for providing training in agriculture sector budgeting at the national, oblast, and raion levels.

3. The World Bank has driven farm privatization and land reform through its Agricultural Privatization and Adjustment Credit, Land, and Real Estate Project, on which it is working with Gosregister, and the land and agrarian reform component of the Agricultural Services Support Project (ASSP).<sup>4</sup> Legal support and public information on land reform has been provided by projects funded by the United States Agency for International Development (USAID) and the SDC (the Kyrgyz Land Reform Project, the Legal Assistance to Rural Citizens Project, and the Legal Infrastructure for a Market Economy Project), as well as by the United Kingdom's Department for International Development (DFID) (the Third Party Arbitration Project). ADB is currently preparing an overview of the impact of land reform.<sup>5</sup>

4. The Kyrgyz Agricultural Finance Corporation (KAFC), a nonbank financial institution, was established in 1997 following the dissolution of Agroprombank and has since been financed through credit lines, namely, the World Bank Rural Finance Project I (\$16 million), the World Bank Rural Finance Project II (\$15 million), the World Bank Agribusiness and Marketing Project (AMP, \$5 million), the Farmers Development Fund (\$2.25 million), and the ADB AADP (\$10 million), and through guarantees from German development cooperation through Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ, German Agency for Technical Cooperation) and from the Raiffeisen Foundation for Development Cooperatives. The KAFC has received substantial TA from the World Bank, ADB, the European Union, and the DFID.

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<sup>1</sup> Loan 1407-KGZ: Agricultural Sector Program 1995; TA 2540 Reorganization and Strengthening of MAWR 1995–1999; TA 3035 Capacity Building for MAWRPI Phase I 1998–1999; TA 3439 Capacity Building for MAWRPI, Phase II 2001–2003; and TA 4409 Agricultural Strategy Formulation 2005–2006).

<sup>2</sup> Agricultural Policy Review: Strategies for Rural Growth and Poverty Alleviation, 1998; Kyrgyz Agriculture and Agribusiness, Opportunities and Obstacles 1992; Irrigation in Central Asia—Social, Economic, and Environmental Considerations, 2003; World Bank Agricultural Policy Update 2004; Livestock Sector Review, 2005.

<sup>3</sup> The program started in the Ministry of Economy and Finance in 1997, and the MAWRPI office opened in 1999.

<sup>4</sup> The World Bank ASSP components are land and agrarian reform, seed sector development, crop protection and plant quarantine, rural advisory service and agricultural market information, and flood damage repair and are scheduled for completion in June 2007. The project is financed by an International Development Association credit of \$13.9 million and an International Fund for Agricultural Development loan of \$8.6 million.

<sup>5</sup> Currently being prepared by the ADB under TA 4408-KGZ: *Study on the Impact of Land Reform Agriculture, Poverty and the Environment*.

5. The Financial Company for Savings and Credit Unions, an apex organization that lends to credit unions, was financed by ADB under the Rural Financial Institutions Project<sup>6</sup> and supported by ADB TA<sup>7</sup> and GTZ TA.

6. Institutional development of the microfinance sector has been financed mainly by ADB,<sup>8</sup> USAID, Mercy Corp, and the International Finance Corporation, while numerous nongovernment organizations (NGOs), including the Aga Khan Foundation and GTZ have provided microfinance loans directly from their projects. The USAID has established a wholesale microfinance organization, Frontiers, through which the Community Development Investment Agency will disburse credit to several microfinance institutions in Chui and Osh oblasts under the ADB Rural Livelihood Development Project.<sup>9</sup> The European Bank for Reconstruction and Development is financing the provision of microfinance through commercial banks under the Micro and Small Enterprises Financing Facility (\$20 million under the first credit line and \$30 million under a second credit line).

7. The Rural Advisory Service, a nationwide advisory service and a sister organization to the Agricultural Training Center, was established in 1998 under the World Bank ASSP and continues to be financed by the SDC and the International Fund for Agricultural Development. A further phase of financing may be considered during preparation of the ASSP II, which is likely to be in 2007. The Training and Extension Service Center, has been financed by both GTZ and the USAID. Both advisory services now derive an increasing proportion of their income from service contracts with various funding agency and NGO-financed projects, including the ADB AADP and Rural Livelihood Development Project.

8. The seeds industry is currently supported by the Swedish International Development Cooperation Authority and the World Bank ASSP. Support has included development of a legal and regulatory framework, including the Seed Law and the Plant Variety Protection Law; assistance with attaining membership of international organizations governing the seed trade, that is, the International Seed Trade Association, the Union for Protection of Varieties, and the International Seed Federation; protection of breeders' rights through the establishment of a royalty collection system; technical support to specialized seed farms; establishment of the Seeds Association of the Kyrgyz Republic; development of the Republican State Seeds Inspectorate and the Cotton Seed Inspectorate, which are responsible for seed certification and inspection; and assistance with developing agreements for seed multiplication with international seed companies. The World Bank ASSP has also distributed seed to 70 community seed funds under a pilot program for poverty reduction

9. Funding agencies have supported the development of agribusinesses in various ways. One approach has been the establishment of associations of agribusinesses, including the Association of Agribusinessmen of Kyrgyzstan, which was financed by the USAID, and the Association of Fruit and Vegetable Processing Industries which was supported by the Helvetas Support to Private Initiatives Project funded by the SDC. A complementary approach used by the Support to Private Initiatives Project was the development of local consultancy companies providing financial planning, marketing, and legal services to agribusinesses. The World Bank AMP established the Agribusiness Competitiveness Center in 2005 to provide long-term

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<sup>6</sup> ADB. 1997. *Report and Recommendation of the President to the Kyrgyz Republic for the Rural Financial Institutions Project*. Manila. 1997.

<sup>7</sup> ADB. 2002. *Technical Assistance to the Kyrgyz Republic for the Capacity Building in Savings and Credit Unions and Microfinancial Systems*. Manila.

<sup>8</sup> Ibid.

<sup>9</sup> ADB. 2004. *Grant Assistance to the Kyrgyz Republic for the Rural Livelihood Development*. Manila.

commercial management consultancy to agribusinesses and marketing services, financed partly through an agency fee, to facilitate contracts between farmers and agroprocessors. The International Trade Center is supporting the certification of processors for international phytosanitary standards. Other projects have taken a more product-specific approach, including the Helvetas Local Market Development Project and the USAID-funded Agrofin Plus Project, which facilitate the management of contracts between farmers and input suppliers, agroprocessors, advisory services, and credit institutions for specific fruit, vegetable, and dairy products. The USAID Small and Medium Enterprise Development Project, implemented by Pragma Corporation, provides business planning advice directly to small and medium enterprises, including agribusinesses, which is also the approach taken under the ADB AADP. Little business advice has been targeted specifically at machinery services other than the advisory work undertaken by the AADP. However, between 1997 and 2001, the Japan International Cooperation Agency provided tractors and combine harvesters as a grant to the Government. The machinery was provided to beneficiaries under preferential lease agreements between beneficiaries and the Altyntechservice, a state-owned enterprise now due for privatization.

10. The German Government, through the GTZ Development of Trade and Service Cooperatives Project and the Raiffeisen Foundation for Development Cooperatives projects, has assisted with the development of the legal framework for the establishment of cooperatives, provided field TA, and provided finance to cooperatives through guarantee agreements with the KAFC and Bai Tushum. Various other projects have also included elements of cooperative development, including the Batken-based GTZ Project for Capacity Building and Food Security, Regional Cooperation, and Conflict Mitigation, which established Moll Tushum, a large input supply cooperative with more than 1,500 members.

11. The main investments in relation to the rehabilitation of irrigation and drainage infrastructure have been made under the World Bank's Irrigation Rehabilitation Project (\$46.80 million), the Onfarm Irrigation Project (\$29 million), and the drainage and irrigation rehabilitation component of the ADB AADP (\$15.28 million). Further off-farm rehabilitation (\$19 million) is scheduled under the World Bank Water Management Improvement Project. Smaller-scale rehabilitation has been undertaken by the USAID, Mercy Corp, the European Union, the United Nations Development Programme, and the Aga Khan Foundation.

12. The legal and institutional framework for water management resulting in the establishment of water user associations (WUAs) and the new Water Code (2005) has been led by the World Bank. ADB has supported water management through several TAs.<sup>10</sup> The establishment and training of WUA staff has primarily been undertaken by the World Bank Onfarm Irrigation Project and to a lesser extent and more recently, by the USAID. Further institutional reform, including the establishment of WUA federations, the reorganization of the Department of Water Resources, and the establishment of the State Water Administration, will be undertaken under the World Bank Water Management Improvement Project.

13. Investment in rural infrastructure has been financed under the ADB Community-Based Infrastructure Services Sector Project<sup>11</sup> and the World Bank and DFID Rural Water Supply and Sanitation Project. Financing has also been provided through projects providing small grants to communities for investment in potable water, irrigation, electricity, schools, medical clinics, and

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<sup>10</sup> Including the ADB TA 2451 Build Capacity for the Formation and Management of WUA 1996 and more recently the Study on Pricing Systems and Cost Recovery Mechanisms for Irrigation Water TA 4405, 2005 - 2006.

<sup>11</sup> ADB. 2000. *Report and Recommendation of the President to the Kyrgyz Republic for the Community-Based Infrastructure Services Sector Project*. Manila.

other infrastructure, such as the Community Development Investment Agency Village Investment Project financed by the World Bank (\$15 million) and the Sustainable Livelihoods Livestock Producing Communities Project financed by the DFID. These projects have also helped establish capacity at the *aiyl okmotu* level for planning and grant management through the establishment of investment committees.

## ASSESSMENT OF THE AGRICULTURE AREA DEVELOPMENT PROJECT

1. The Southern Agriculture Area Development Project (SAADP) will adopt the same area development concept and approach used by the Agriculture Area Development Project (AADP) implemented in Chui Oblast in the north of the Kyrgyz Republic. This approach seeks to address a range of issues (drainage and irrigation, access to credit, advisory services, marketing, agribusiness development, and equitable access to land) simultaneously, focusing intensively on target *aiyl okmotu*. The AADP has had a substantial and visible impact on agriculture in those target *aiyl okmotu* where drainage and irrigation rehabilitation has been completed and the combined impact of all project components is now visible. Many aspects of the AADP's design and implementation (notably, the farm development component and the drainage and irrigation component) are therefore replicated in the Project, while other aspects (notably, the credit, agribusiness development, and marketing components) have been adapted to achieve a greater impact more rapidly. An additional component, land improvement, which addresses pasture management and orchard management constraints in the south, has been added.

### A. Overall Financial and Physical Progress

2. As of 30 September 2006, the Project had been under implementation for 102 months, with a further 27 months to run until project completion (31 December 2008), had expended 50.5% (\$18.21 million) of total loan funds (SDR 8,297,000 or approximately \$38 million), and had achieved 79% of the intended physical progress.

### B. Project Impact

3. The AADP's impact on farm incomes is expected to be achieved through several categories of benefits. As drainage and irrigation rehabilitation has not yet been completed in the majority of target *aiyl okmotu*, the combined impact of all project components is not yet measurable. The main categories of benefits are: (i) reduced flooding of settlements, including houses, yards, garden plots (which are an important source of food security for the poor), and crop storage areas as a result of drainage rehabilitation, including that undertaken to reduce village flooding<sup>1</sup> in the Uzen Kur *aiyl okmotu*, approximately 20 households have benefited from reduced flooding. A further 1,450 houses affected by flooding are expected to benefit; (ii) reclamation of modest areas of land previously unused because of extreme salinity or waterlogging as a result of drainage and irrigation rehabilitation. In Jany Pahta, 280 hectares (ha) (approximately 10% of the irrigated area) have been reclaimed and initially cropped with cabbage for sale to Kazakhstan. Cabbage will be grown in rotation with other crops, yielding a net present value of incremental benefits of about \$1.3 million or \$4,600 per ha; (iii) a shift in cropping from low-value crops (e.g., nonirrigated wheat) to higher-value crops (e.g., alfalfa, root crops, and vegetables in rotation with irrigated wheat) on significant areas of land. This is primarily a result of drainage and irrigation rehabilitation in areas that were previously cropped, but where cropping was restricted because of inadequate water supply or mild waterlogging and salinity, and to a lesser extent is a result of improved marketing opportunities and training provided by the Project. In Uzen Kur, a change in cropping has been achieved on 490 ha that were previously cropped with nonirrigated wheat and are now cropped with irrigated wheat and alfalfa for cash sale. The latter crops will in the future be grown in rotation with other crops,

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<sup>1</sup> The Ministry of Agriculture, Water Resources, and Processing Industry requested, and the Asian Development Bank approved, the reallocation of \$3.5 million to undertake drainage rehabilitation in eight *aiyl okmotu* that experienced extreme flooding of settlements.

yielding a net present value of incremental benefits of about \$1.1 million or \$2,100 per ha. In Jany Pahta, a change in cropping is expected to be achieved on 300 ha (approximately 10% of the irrigated area), where areas previously cropped with nonirrigated wheat will now be cropped with cabbage and alfalfa for cash sale in rotation with irrigated wheat. These crops will in the future be grown in rotation with other crops, yielding a net present value of incremental benefits of \$1.2 million or \$3,800 per ha; (iv) improved crop yields in areas where the Project has not led to a change in cropping, but where yields were previously constrained by inadequate water supply, mild waterlogging and salinity, and poor production techniques. This is a result of a combination of drainage and irrigation rehabilitation, training provided through the Project by the advisory services, and, to a lesser extent, improved machinery services facilitated under the enterprise development component. In Uzen Kur, improvements in crop yields are expected to be achieved on 1,475 ha as a result of drainage and irrigation rehabilitation and training, yielding a net present value of incremental benefits of \$727,000 or \$490 per ha. Similarly, in Jany Pahta, improvements in crop yields are expected to be achieved on 2,400 ha yielding a net present value of incremental benefits of \$2.8 million or \$1,200 per ha; (v) increased livestock output as a result of purchases of livestock financed from the Kyrgyz Agricultural Finance Corporation (KAFC) credit line amounting to \$10.5 million. Additional increases in livestock output may also have resulted to a much lesser extent from improved livestock yields as a result of training in the area of livestock, which has been relatively limited compared with training in crop production.

## **C. Project Results**

### **1. Farm Development**

4. Training was provided to farmers by advisory services under contract to the Project. The key constraint to the provision of services, particularly outreach, has been and remains the limited capacity of the advisory services, although notable improvements in services are apparent. Both contractors (Rural Advisory Service and Arsten) initially had difficulties in fulfilling services for which they were contracted, completing only 69% and 80% of contracted activities, respectively, in 2004, although this increased to 100% for both contractors in 2005. The standard of services has improved during the Project, with the annual monitoring score for the Rural Advisory Service increasing from 62% in 2004 to 98% in 2006 for training and from 50% in 2004 to 91% in 2006 for demonstrations. The Project has contributed to improvements in services by (i) introducing monitoring, performance-based payments, and competitive bidding for services; and (ii) changing the approach to training from extensive training of a large number of farmers to intensive training of a small number of leaders of training groups. Consequently, (i) 12,400 farmers (103% of the target) have been trained through formal classroom training, field demonstrations, and/or consultancy, primarily in crop production, and to a lesser extent in livestock production; (ii) 230 leaders of farmers' groups have been trained, many of whom have progressed to work in agricultural advisory and other services;<sup>2</sup> and (iii) 155 demonstrations have been established and attended by almost 10,000 farmers.

5. In 2005, the Project financed the development of a 1-year course in agricultural extension at the Agrarian University in Bishkek to be implemented under contract with the Agricultural Training Center and in association with the Swiss Agricultural College. A course curriculum has been prepared, 6 lecturers have been trained in course delivery, and the first 12

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<sup>2</sup> For example, of the 33 leaders trained by Arsten, 23% went on to work as village advisers for the advisory services, 23% established small machinery or input supply services, and 10% became water user association staff.

students have graduated from the course, with several going on to be employed by the advisory services. The course is to be integrated into the Agrarian Academy's main curriculum in 2007.

6. Legal support was provided to farmers through cooperation with legal support projects funded by the United States Agency for International Development (USAID). The support was primarily targeted at resolving land and property allocation disputes, which were most acute in *aiyl okmotu* where large, unreformed cooperatives had emerged from the reorganization of the former state farms and collective farms. The social tensions and lack of property rights characterizing these disputes were a barrier to achieving advances in all other project components. The Project's cooperation with the projects funded by USAID contributed significantly to the reorganization of cooperatives, enabling further development in *aiyl okmotu*.

## 2. Drainage and Irrigation Rehabilitation

7. The Project currently targets 20 water user associations (WUAs) serving 50,086 ha (90% of the originally targeted area).<sup>3</sup> The Project has completed all onfarm and off-farm construction for three WUAs serving 5,766 ha (10% of the originally target area), construction is ongoing for a further eight WUAs serving 18,246 ha (33% of the originally targeted area), bidding for construction is ongoing for design for four WUAs serving 14,033 ha (26% of the originally targeted area), design is ongoing for one WUA serving 3,604 ha (7% of the originally targeted area), and designs are under tender for a further four WUAs serving 8,437 ha (15% of the originally targeted area). Disbursements for onfarm works account for 77% of total disbursements for construction to date and those for off-farm works account for 23%. In addition, designs have been completed for civil works to alleviate flooding in six seriously affected villages and will be financed from unallocated funds (\$3.5 million).

8. Even though the Project is expected to achieve rehabilitation of the target area before project completion, implementation has been hindered by a number of factors in addition to cost escalations. The limited number of design and construction companies has meant that in some cases an inadequate number of bids were submitted or that bids were not competitively priced, leading to re-tendering. One design contract and one construction contract have been re-tendered. Designs were aimed at achieving technically and financially viable irrigation and drainage systems. This did not imply complete rehabilitation of the systems; however, the capping of rehabilitation costs for each WUA has in some cases resulted in a lower level of rehabilitation than some WUAs may have wished to undertake and been willing to repay,<sup>4</sup> and greater flexibility in the budget for each WUA may have been desirable and has been incorporated into the design of the Project.

9. The strengthening of WUAs was undertaken under a cooperation agreement with the World Bank Onfarm Irrigation Project, which had established WUA support units to establish and train WUAs. This collaboration has succeeded in ensuring that WUAs have attained the minimum criteria for participation in the Project and in advancing the WUAs' financial viability, specifically, in helping them prepare medium-term financial plans for the operation and maintenance of rehabilitated systems and for increasing water charges to cover such costs (a minimum requirement for participation in the Project). Ensuring implementation of these plans will be an ongoing challenge for the WUA support units and will be critical for the long-term

<sup>3</sup> The reduced target area is due to increased investment costs from \$184 to \$284 per ha and also reallocation of funds to address the village flooding problem.

<sup>4</sup> WUAs are required to repay 25% of the costs of construction over a 7-year period, with a 4-year grace period, starting from the completion of construction.

sustainability of the rehabilitated systems. The WUA support units have trained all WUAs under the Project in administration, financial management, water engineering, water management, monitoring and evaluation, and legal issues.

### **3. Private Sector Input Supply and Marketing Services**

10. The Project Management Unit (PMU) has sought to improve marketing opportunities for farmers by (i) establishing informal marketing groups, (ii) identifying buyers, (iii) developing improved contract terms, and (iv) negotiating contracts with buyers. To date, 59 fruit and vegetable marketing groups serving 600 farmers and 13 milk marketing groups serving 100 farmers have been established. Contracts for 12,000 metric tons of fruits and vegetables valued at \$700,000 and for 673,000 liters of milk valued at \$86,000 have been facilitated. Contract enforcement remains a major constraint, with both parties defaulting on contracts with predetermined prices to seek short-term price gains through direct market sales or purchases. The establishment of successful milk marketing groups early in the Project was hindered by the inability or unwillingness of group members to borrow to purchase milk cooling tanks and the absence of alternative sources of finance for such investments.

11. The PMU has also worked to improve domestic and export marketing opportunities for processors and wholesalers. This has been achieved through missions to Kazakhstan and the Russian Federation to identify buyers; assistance with representation at trade fairs; collaboration with other funding agencies to establish a new brand name (“taste of the sun”); and development of an agreement to supply the major food market chain, Narodny, in Bishkek with processed food products. The result has been an increase in total sales by five processors of \$425,000. The Project currently supports six businesses in domestic and export markets and has secured 25 contracts for a total of \$275,000 since project inception.

12. The PMU has provided consultancy, including in the areas of market research, financial and strategic planning, and technical advice, to agribusinesses serving target farmers. Those supported include 16 machinery contractors, 5 machinery repair services, 3 small machinery manufacturers, 3 spare parts distributors, 21 fruit and vegetable processors, and 5 milk processors. Of these, six processing enterprises have been helped to secure finance totaling \$415,000 from the KAFC.

### **4. Rural Finance**

13. A credit line of \$10 million for investment finance was made available through the KAFC. To date, \$7.7 million has been disbursed from the Asian Development Bank to the KAFC, resulting in the lending of Som444.2 million (\$11.1 million), of which 93% was for livestock purchases, 5% for equipment and construction, and 2% for processing. Fifteen percent of lending has been to target project areas and 85% to other areas within Chui Oblast, and 18.5% of the outstanding portfolio remains in the target area. The repayment performance on the credit line is high at 99.14%. The credit line has been managed independently by the KAFC, and the PMU has not been involved in lending decisions or monitoring.

### **5. Project Management**

14. The Ministry of Agriculture, Water Resources, and Processing Industry has proven to be competent in undertaking its role as the Executing Agency. Given its limited resources, the oblast administration, the Implementing Agency, contributed little to the PMU’s day-to-day operations, although it is involved in project oversight and tender committees.

15. The financial management system and the reporting system established under the AADP were successful and can be used for the Project with some adaptations. Acceptable procurement procedures for irrigation and drainage rehabilitation took time to establish at the start of the Project, and thus the Project subsequently experienced delays in relation to such contracts.

16. The AADP's monitoring and evaluation system was established late during the Project, and until the recent appointment of a permanent sociologist, did not include adequate provision for monitoring the Project's social and gender aspects.

#### **D. Key Lessons**

17. As a result of the AADP's experience, oblast administrations have not been appointed as implementing agencies under the Project, although it is considered important that they maintain a strong oversight role through their representation on the Project Steering Committee.

18. The early establishment of a monitoring and evaluation system is essential, and the Project includes adequate national and international consultancy resources to be employed at the start of the Project (including expertise in social and environmental monitoring) to ensure that this takes place.

19. Other aspects of management that will be critical to the success of the Project include (i) establishing a strong management team, (ii) replicating the financial management system used under the AADP, (iii) ensuring greater transparency and fairness in staff recruitment, (iv) investing in staff training early in the Project, and (v) ensuring sufficient international consultancy to support the PMU during the first 3 years of the Project.

20. While the general approach of contracting local advisory services and encouraging competition between service providers has helped improve the quality of the services provided, more intensive investment is needed to improve the quality of training materials and field advisers' skills. The Project includes a provision for a contract to develop high-quality training materials and train advisers in their use, as well as a provision for investment in farmer field schools to increase the number of village-based advisers with specialist extension skills.

21. The procurement procedure for the design of drainage and irrigation rehabilitation did not result in significant competition given the limited number of design companies under the AADP, and in-house design capacity might have been preferable. In the south, the existing oblast rehabilitation teams used by the World Bank have the capacity for basic design and can be used by the Project with the support of a design company for complex designs.

22. Well-managed, financially sustainable WUAs are critical to the rehabilitation process and the sustainability of rehabilitated systems. The cooperation agreement between the Project and WUA support units established under the AADP is to be replicated under the Project. Furthermore, the Project includes an assurance that the Government will continue to finance the WUA support units during the life of the Project.

23. The scale of technical support for agribusiness development under the AADP was relatively small in relation to the amount of credit finance available, and the uptake of credit for investment in agribusiness development was relatively small. Investment in support for marketing was similarly modest in relation to the overall project budget. To address this issue, the Project design includes a provision to contract a local organization dedicated to agribusiness

development and marketing to provide, where necessary, long-term commercial consultancy to agribusinesses to help them prepare and implement investment proposals to be financed under the credit line. Alternative forms of finance for agribusinesses, such as equity investment, will also be examined. The organization will also provide marketing links between these agribusinesses and farmers.

24. The conditions for obtaining credit from the KAFC under the AADP were not appropriate for all farmers and agribusinesses. Diversifying the range of financial institutions involved in credit provision to include commercial banks and wholesale microfinance institutions for onlending to credit unions and microfinance organizations under the Project will provide borrowers with more choices and will encourage competition between lenders.

25. In conclusion, the Project seeks to replicate the overall approach used under the AADP, but greater investment in agribusiness development, marketing, and diversification of participating financial institutions and the addition of a component to address pasture and orchard management are expected to lead to an even more successful area development project in the south.

## ASIAN DEVELOPMENT FUND IX GRANT COMPONENT

1. The Asian Development Bank will provide financing of \$20 million for the Southern Agriculture Area Development Project. Of this total, the Government of the Kyrgyz Republic is requesting an Asian Development Fund IX grant allocation of \$5 million to finance (i) farmer training and village advisory services; (ii) pasture land management; (iii) orchard management; (iv) project management; (v) international consultants; and (vi) national consultants.

### A. Constraints to Growth and Poverty Reduction

2. The crop, livestock, and agro-industrial subsectors continue to experience substantial adjustments. Agriculture continues to underperform, as many of the farms and agroprocessing facilities are not operating efficiently, are not profitable, and in some cases are not financially viable.

3. The vast majority of arable land has been distributed since 1994. A functional land lease market exists, but the land sales market is largely inactive. Moreover, the Land Redistribution Fund consists of 25% of arable land that was not distributed, intended partly for allocation to the poorest members of society and those returning to the country after the land distribution process. The fund is managed by *aiyl okmotu*, and land is mostly leased on a competitive basis. However, the transparency and competitiveness of the leasing process vary. The Land Redistribution Fund limits the amount of land that is available for the private lease and sales market.

4. The Kyrgyz Republic has three different levels of pasture land, and the current administration by three different levels of government, the monitoring of pasture use and pasture quality by the State Land Development Institute, and the existence of forest farms, which lease out pastures from the Forest Fund, make the current pasture administration and management system unsustainable. In addition to the lack of transparency, the leasing system is too complicated to be widely applied, there is no effective monitoring of the conditions of pasture land, and no investments are made to improve access to and the quality of pastures.

5. The supply of agricultural inputs is largely in private sector hands. Agrochemicals are available, but verification of their origins and quality is not always satisfactory. In addition, the equipment for applying fertilizer is often inaccurate and presents a danger to the health of users. Demand for inputs is constrained by a lack of finance. Development of the seed sector is constrained by (i) the loss of contacts with traditional customers in the former Soviet Union and Eastern Europe; (ii) the limited resources of the research institutes, which are responsible for field testing before certification by the seeds inspectorate; and (iii) the absence of arrangements for royalty payments. Furthermore, seed multiplication and distribution is concentrated in the hands of a small number of large farms that remain largely unreformed because of their strategic status.

6. The small sizes of farms, the relative abundance of labor (largely female) despite high levels of migration, and the unsuitability of the remaining large-scale machinery, which is also in a poor state of repair, mean that the demand for and the supply of machinery services are limited.

7. The Kyrgyz Republic is highly dependent on irrigated agriculture, with 80% (1.1 million hectares) of the 1.4 million hectares of arable land in the country being irrigated. Constraints to efficient water management exist at the national, oblast, raion, and water user association (WUA) levels. WUAs are responsible for the ownership and management of onfarm irrigation systems. The Department of Water Resources of the Ministry of Agriculture, Water Resources, and Processing Industry is responsible for off-farm drainage and irrigation. In addition, the 434

WUAs across the country, which have inherited dilapidated irrigation and drainage systems, require further support and training. Even though more than a third of existing systems have been rehabilitated, a vast area still requires rehabilitation.

8. Since 1991, livestock previously concentrated in a relatively small number of collective farms were dispersed among a large number of households, but at the same time, the veterinary system declined because of budget cuts. Staff numbers declined rapidly and the free supply of drugs ceased. The current veterinary service does not have the right staff, budget, working conditions, and facilities to fulfill the tasks required to deal with the minimum public veterinary tasks of legislation, regulation, control, and monitoring; however, private veterinary practices have not developed quickly enough to fill the vacuum.

9. The value added to agricultural production is limited. The agroprocessing sector is weak, and even though it is recovering, it is not growing as fast as the agriculture sector. Existing processing units face difficulties in securing raw materials of consistent quantity and quality from small farmers because of the low level of farm productivity; the weak contractual arrangements, which both parties often dishonor; and the poor collection, storage, and cooling facilities. Border access is a major problem for both farmers and agribusinesses in the south.

10. The Rural Advisory Service is well established and has a national network that includes seven oblast offices and a system of raion-based advisers. The quality of services provided by the Rural Advisory Service varies among oblasts. Outreach is low at around 25% of all villages and 6% of farmers within each village.

11. The research institutes lack clear research strategies and the resources to implement them. Farmers and the extension services perceive research to be irrelevant to farmers' needs, and the link between research and extension is weak.

12. The provision of agricultural finance faces both supply-side and demand-side constraints. The demand-side constraints are a result of low farm productivity and farmers' perceptions of borrowing for cash crop production as being high risk and the interest rates as being excessively high. Only about 5% of commercial bank lending is for agriculture, storage, and agroprocessing. The exception is the Kyrgyz Agriculture Finance Corporation, which lends only to the agriculture sector and has a loan portfolio of \$38.20 million,<sup>1</sup> of which 8% is for agroprocessing. The Financial Company for Savings and Credit Unions was established under the Asian Development Bank's Rural Financial Institutions Project to develop and finance credit unions. The company currently has assets of \$10 million. German development cooperation through Deutsche Gesellschaft für Technische Zusammenarbeit (German Agency for Technical Cooperation) has also provided technical assistance for the Financial Company for Savings and Credit Unions. Considerable unmet demand for microfinance loans exists in the Kyrgyz Republic. The National Bank of the Kyrgyz Republic's medium-term microfinance development strategy estimates unmet demand for loans by farms and enterprises of between \$24 million and \$40 million and unmet demand from poor households of between \$14 million and \$18 million.

## **B. Proposed Activities**

14. Table A5.1 summarizes the cost estimates for the grant.

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<sup>1</sup> Estimated from National Bank of the Kyrgyz Republic. 2005. Draft Medium-Term Strategy for Microfinance Development. Bishkek.

**Table A5.1: Cost Estimates**  
(\$ million)

<b>Item</b>	<b>Amount</b>
<b>A. Farm Development</b>	
1. Farmer field schools	0.11
2. Village advisory services	0.57
3. International Consultants	0.57
4. National Consultants	0.10
<b>Subtotal (A)</b>	<b>1.35</b>
<b>B. Agribusiness Development and Marketing</b>	
1. National Consultants	0.08
<b>Subtotal (B)</b>	<b>0.08</b>
<b>C. Drainage and Irrigation Rehabilitation</b>	
1. International Consultants	0.25
2. National Consultants	0.28
<b>Subtotal (C)</b>	<b>0.53</b>
<b>D. Land Improvement</b>	
1. Pasture Land Management	0.72
2. Orchard Management	0.46
3. International Consultants	0.14
4. Domestic Consultants	0.14
<b>Subtotal (D)</b>	<b>1.46</b>
<b>E. Project Management</b>	
1. International Consultants	1.05
2. National Consultants	0.53
<b>Subtotal (E)</b>	<b>1.58</b>
<b>Total (A + B + C + D + E)</b>	<b>5.00</b>

Source: Asian Development Bank estimates.

15. The ADF IX grant will finance farm field schools, particularly in tree crops and village advisory services, including assessments of farmer needs, training of village advisors, demonstration plans, and provision of technical advice. To support land improvement, the ADF IX grant will finance surveys and mapping of pastures, the preparation and implementation of pasture land infrastructure investments, the training of pasture-user groups, and the preparation of orchard investments. Project management will be financed including international and national consultants, equipment, vehicles, communities and support staff. The ADF IX grant will also finance the international and national consultants. International consultants will provide technical advice in farm development, supervision of design of irrigation and drainage rehabilitation, orchard management, project management, monitoring and evaluation, and gender and community development specialist. National consultants will have expertise in farm development, agribusiness development, engineering design and construction supervision, pasture land management specialist, orchard management, project management, finance, procurement, monitoring and evaluation, and gender and community development specialist.

**DETAILED COST ESTIMATES**  
**Table A6.1: Detailed Cost Estimates by Cost Category**

Item	(Som million)			(\$ million)		
	Local	Foreign	Total	Local	Foreign	Total
<b>A. Investment Costs</b>						
1. Civil Works	193.49	155.47	348.96	4.80	3.86	8.66
2. Vehicles, Equipment, Materials, and Services						
Vehicles	4.07	6.10	10.17	0.10	0.15	0.25
Equipment	30.93	5.29	33.22	0.77	0.13	0.90
Materials and Services	16.24	2.63	18.87	0.40	0.06	0.46
<b>Subtotal (A2)</b>	<b>51.24</b>	<b>14.02</b>	<b>65.26</b>	<b>1.27</b>	<b>0.34</b>	<b>1.61</b>
3. Consulting Services						
International Consultants	6.73	103.30	110.03	0.17	2.56	2.73
National Consultants	36.48	0.00	36.48	0.91	0.00	0.91
<b>Subtotal (A3)</b>	<b>43.21</b>	<b>103.30</b>	<b>146.51</b>	<b>1.08</b>	<b>2.56</b>	<b>3.64</b>
4. Training	113.35	10.76	124.11	2.81	0.27	3.08
5. Finance						
Credit	161.20	0.00	161.20	4.00	0.00	4.00
<b>Subtotal (A)</b>	<b>562.49</b>	<b>283.55</b>	<b>846.04</b>	<b>13.96</b>	<b>7.03</b>	<b>20.99</b>
<b>B. Recurrent Costs</b>						
1. PMU Vehicle Operation and Maintenance	5.62	3.34	8.96	0.14	0.08	0.22
2. PMU Other Operation and Maintenance	51.07	8.32	59.39	1.27	0.21	1.48
3. PMU Staff Travel and Per Diem	5.51	0.35	5.86	0.13	0.01	0.14
4. I&D Operation and Maintenance	166.46	0.00	166.46	4.13	0.00	4.13
<b>Subtotal (B)</b>	<b>228.66</b>	<b>12.01</b>	<b>240.67</b>	<b>5.67</b>	<b>0.30</b>	<b>5.97</b>
Physical Contingencies	25.69	16.65	42.34	0.64	0.41	1.05
Price Contingencies	94.29	14.38	108.67	2.34	0.36	2.70
<b>Total Project Costs (A + B)</b>	<b>911.13</b>	<b>326.59</b>	<b>1,237.72</b>	<b>22.61</b>	<b>8.10</b>	<b>30.71</b>
Interest during Implementation	0.00	21.01	21.01	0.00	0.52	0.52
<b>Total Cost</b>	<b>911.13</b>	<b>347.60</b>	<b>1,258.73</b>	<b>22.61</b>	<b>8.62</b>	<b>30.23</b>

I&D = irrigation and drainage; PMU = Project Management Unit.

Numbers may not add up due to rounding.

Source: Asian Development Bank estimates.

Table A6.2: Detailed Cost Estimates by Financier

	The Government		ADB Loan		ADB Grant		GEF Fund		WUAs		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
<b>I. Investment Costs</b>												
<b>A. Civil Works</b>	1.44	16.67	6.20	71.65	0.67	7.74	0.34	3.95	0.00	0.00	8.66	100%
<b>B. Vehicle, Equipment, Materials &amp; Services</b>												
Vehicles	0.04	16.67	0.20	77.64	0.00	0.00	0.01	5.69	0.00	0.00	0.25	100%
Equipment	0.15	16.67	0.70	78.19	0.00	0.00	0.05	5.14	0.00	0.00	0.90	100%
Materials and Services	0.06	16.67	0.17	43.91	0.03	8.06	0.12	31.36	0.00	0.00	0.38	100%
Audit	0.01	16.67	0.03	37.85	0.02	23.18	0.02	22.29	0.00	0.00	0.09	100%
<b>Subtotal (B)</b>	0.27	16.67	1.10	67.87	0.05	3.13	0.20	12.33	0.00	0.00	1.62	100%
<b>C. Consulting Services</b>												
International Consultancy	0.00	0.00	0.00	0.00	2.01	73.75	0.71	25.98	0.00	0.00	2.73	100%
Domestic Consultancy	0.00	0.00	0.00	0.00	0.86	94.84	0.05	5.16	0.00	0.00	0.91	100%
<b>Subtotal (C)</b>	0.00	0.00	0.00	0.00	2.87	79.00	0.76	20.79	0.00	0.00	3.64	100%
<b>D. Training</b>	0.51	16.67	0.86	27.96	0.85	27.73	0.85	27.64	0.00	0.00	3.08	100%
<b>E. Finance</b>												
Credit	0.00	0.00	4.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	100%
<b>Total Investment Costs</b>	<b>2.23</b>	<b>10.64</b>	<b>12.16</b>	<b>57.94</b>	<b>4.45</b>	<b>21.18</b>	<b>2.15</b>	<b>10.23</b>	<b>0.00</b>	<b>0.00</b>	<b>20.99</b>	<b>100%</b>
<b>II. Recurrent Costs</b>												
A. PMU: Vehicle Operation and Maintenance	0.04	16.67	0.17	74.40	0.00	0.00	0.02	8.93	0.00	0.00	0.22	100%
B. PMU: Other Operation and Maintenance	0.82	55.60	0.59	39.77	0.00	0.00	0.07	4.64	0.00	0.00	1.47	100%
C. PMU: Travel and Per Diems	0.00	1.58	0.01	7.07	0.13	87.58	0.01	3.77	0.00	0.00	0.15	100%
D. I&D: Operation and Maintenance	2.58	62.50	0.00	0.00	0.00	0.00	0.00	0.00	1.55	37.50	4.13	100%
<b>Total Recurrent Costs</b>	3.44	57.61	0.76	12.76	0.13	2.13	0.09	1.57	1.55	25.94	5.97	100%
<b>Total Baseline Costs</b>	5.67	21.04	12.93	47.94	4.57	16.96	2.24	8.32	1.55	5.74	26.97	100%
Physical Contingencies	0.25	23.38	0.61	57.81	0.09	8.38	0.06	6.01	0.05	4.42	1.05	100%
Price Contingencies	0.90	33.30	0.95	35.06	0.34	12.54	0.19	7.22	0.32	11.88	2.70	100%
<b>Total Project Costs</b>	6.81	22.20	14.48	47.14	5.00	16.28	2.50	8.14	1.92	6.24	30.71	100%
Interest During Implementation	0.00	0.00	0.52	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	100%
<b>Total Disbursement</b>	6.81	21.83	15.00	48.02	5.00	16.01	2.50	8.00	1.92	6.13	31.23	100%

ADB = Asian Development Bank; GEF = Global Environment Facility; PMU = project management unit; WUA = water user association.

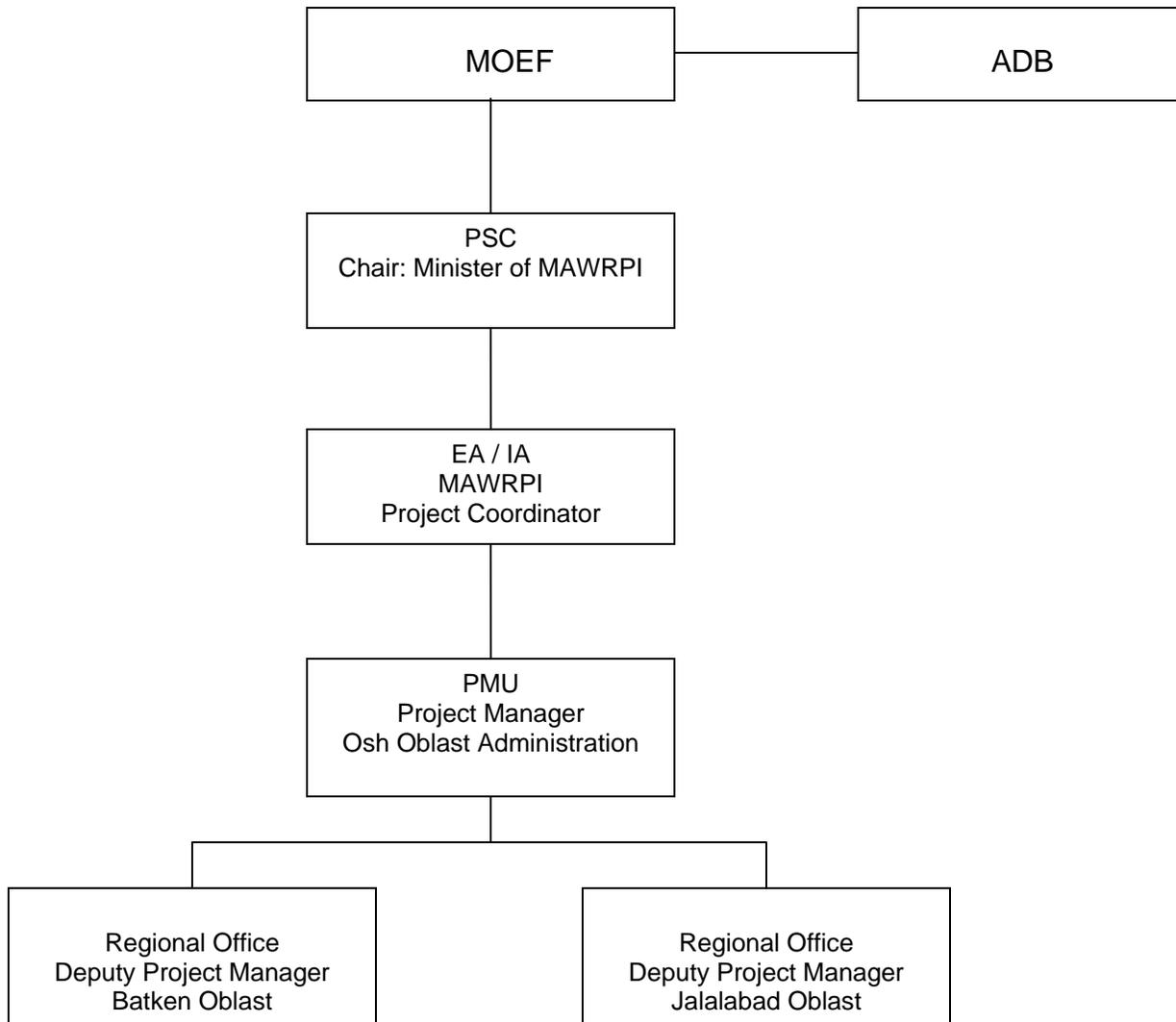
<sup>a</sup> Government financing includes in-kind contributions to taxes and duties, budget support for water user association support unit costs, and off-farm irrigation and drainage system operation and maintenance costs.

Numbers may not add up due to rounding.

Source: Asian Development Bank estimates.

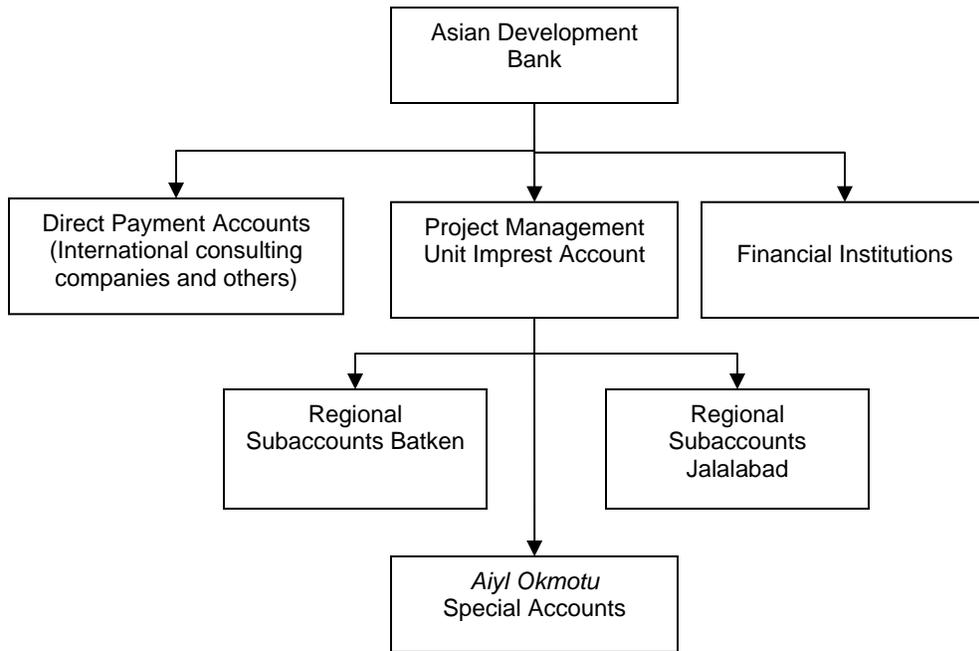
## ORGANIZATION CHART/FLOW OF FUNDS

Figure A7.1: Organization Chart



ADB = Asian Development Bank; EA = executing agency; IA = implementing agency; MAWRPI = Ministry of Agriculture, Water Resources, and Processing Industry; MOEF = Ministry of Economy and Finance; PMU = project management unit; PSC = project steering committee.

**Figure A7.2: Flow of Funds**





## PROCUREMENT PLAN

1. Contract packages are to be developed and will be reviewed and finalized during implementation. This procurement plan will be revised when the contract packages have been finalized.

### A. Project Information

Country	Kyrgyz Republic
Name of Borrower	Kyrgyz Republic
Project Name	Southern Agriculture Area Development Project
Loan Reference/Grant Reference	To be assigned after approval
Date of Effectiveness	To be indicated after the loan becomes effective
Amount	Loan: \$15 million, grant: \$5 million
Of which committed	None
Executing Agency	Ministry of Agriculture, Water Resources, and Processing Industry
Approval Date of Original Procurement Plan	18 December 2006
Approval of Most Recent Procurement Plan	Not yet applicable
Publication of Local Advertisements	To be indicated later
Period Covered by Plan	18 months from the date of loan approval

### B. Procurement Thresholds, Goods and Related Services, Works and Supply and Install

Procurement Method	To Be Used for Contracts Valued at
International Competitive Bidding (ICB) for Civil Works	Over \$1 million
ICB for Goods and Services	Over \$0.5 million
National Competitive Bidding (NCB) for Civil Works	\$0.1 to \$1.0 million
NCB for Goods and Services	Between \$0.1 to \$0.5 million
Shopping for Goods and Services	Not more than \$100,000

### C. Procurement Thresholds, Consultant Services

Procurement Method	To Be Used for Contracts Valued at
Modified Quality- and Cost-Based Selection	Any amount
Quality-Based Selection	Above \$750,000
Consultants' Qualification Selection	Less than \$200,000
Fixed Budget Selection	\$100,000 or less

### D. List of Contract Packages in Excess of \$100,000, Goods, Works, and Consulting Services

Ref	Contract Description	Estimated Cost (\$ million)	Procurement Method	Expected Date of Advertisement	Prior Review	Comments
1	Farmer field schools	0.12	NCB	July 2007	Yes	Contract packaging to be finalized during implementation. QCBS and full technical proposal will be used.

Ref	Contract Description	Estimated Cost (\$ million)	Procurement Method	Expected Date of Advertisement	Prior Review	Comments
2	Village advisory services	1.30	NCB	July 2007	Yes	Contract packaging to be finalized during implementation. QCBS and simplified technical proposal will be used.
3	Agribusiness advisory services	0.20	NCB	December 2007	Yes	Contract packaging to be finalized during implementation. QCBS and simplified technical proposal will be used.
4	Construction of marketing infrastructure	0.27	NCB	December 2007	Yes	Several contracts. Contract packaging to be finalized during implementation. QCBS and simplified technical proposal will be used.
5	Irrigation and drainage construction	0.37	NCB	July 2007	Yes	Several contracts. Contract packaging to be finalized during implementation. QCBS and simplified technical proposal will be used.
6	International Consultants	2.98	ICB	March 2007	Yes	QCBS method and full technical proposal will be used.

ICB = international competitive bidding; NCB = national competitive bidding; QCBS = quality- and cost-based selection

## OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

### A. Introduction

1. Consultants will be engaged for a total of 96 person-months, of which 5 person-months will be for unallocated short-term consultants. The latter will be used as the need arises during project implementation. More comprehensive and detailed terms of reference are in Supplementary Appendix I.

### B. Responsibilities of the Consultants

2 In all cases, the international consultants will undertake all their duties alongside the relevant national consultants and provide leadership and guidance and formal and on-the-job training to ensure that the national consultants have the capacity to assume maximum responsibility for all aspects of project implementation at the earliest possible date.

#### 1. Team Leader (27 person-months)

3. The team leader will undertake the following tasks:

- (i) Provide direction to the Ministry of Agriculture, Water Resources, and Processing Industry (MAWRPI) and the Project Management Unit (PMU) in relation to project implementation and development to ensure that it achieves the intended outcome and outputs.
- (ii) Establish all project management systems and transfer management of these systems to local staff with appropriate training.
- (iii) Participate as a member of the Tender Committee and help evaluate all tenders.
- (iv) Agree on and implement arrangements for undertaking due diligence of financial institutions applying for participation in the project credit line.
- (v) Manage the consulting team and support staff.

#### 2. Monitoring and Evaluation Specialist (10 person-months)

4. The monitoring and evaluation specialist will engage in the following activities:

- (i) Help the PMU recruit, supervise, and train national staff.
- (ii) Establish a comprehensive monitoring and evaluation system to include a baseline survey; indicators of progress toward achievement of outputs and outcome; and assessment of the Project's environmental, social, poverty, and gender impact.
- (iii) Design a reporting system to meet the requirements of the Ministry of Economy and Finance, the MAWRPI, and the Asian Development Bank (ADB).

#### 3. Farm and Agribusiness Development Specialist (19 person-months)

5. The farm and agribusiness development specialist will perform the following tasks:

- (i) Support the PMU in implementing all activities under the farm development component and the agribusiness development and marketing component.
- (ii) Help the PMU recruit, supervise, and train national staff.
- (iii) Maintain information on policy issues, investments by development partners and the private sector, and current status of and opportunities for farms and agribusinesses in the project area.
- (iv) Design and supervise implementation of the rapid appraisal of the *aiyl okmotu* in cooperation with the project monitoring and evaluation team and supervise the preparation of simple strategies for each *aiyl okmotu* that will include the

identification of priority products and their value chains for support under the Project.

- (v) Identify, inform, and assess agribusinesses (processors, input suppliers, wholesalers and trading companies, machinery and spare parts suppliers, and machinery contractors) that do or could potentially serve the project area.
- (vi) Prepare terms of reference for the technology development, farmer field schools, village advisory services, marketing support to farmers, and agribusiness advisory services contracts.
- (vii) Review training materials used by the advisory services and, where necessary, recommend improvements.
- (viii) Maintain an overview of the strategies, methodologies, and management practices of the farm and business advisory services contracted by the Project and recommend improvements in the quality of services.
- (ix) Identify storage and cooling facilities critical to the functioning of priority value chains in each *aiyl okmotu*, assess their potential for support under the Project, and prepare terms of reference for the design and construction and/or rehabilitation of the facilities.
- (x) Help the PMU supervise contractors and develop systems for monitoring the performance of services.

#### **4. Irrigation and Drainage Engineer (9 person-months)**

6. The irrigation and drainage engineer will undertake the following tasks:

- (i) Help the PMU recruit, supervise, and train national staff.
- (ii) Assist the procurement specialist with all technical aspects of preparing requests for proposals, including detailed terms of reference, and in evaluating bids for services from design companies.
- (iii) Ensure that the design process fully involves the members of water user associations (WUAs), that WUA members are fully briefed on proposed designs, and that members' priorities are taken into full consideration during design.
- (iv) Ensure that designs are subject to proper technical review and approval by the technical committee chaired by the oblasts' departments of water resources and the environmental review and approval by the State Committee for Environmental Protection and Forestry.
- (v) Review designs prior to approval of tenders for construction and formally indicate approval or otherwise of designs for submission by the PMU to ADB.
- (vi) Assist the procurement specialist with all technical aspects of preparing requests for proposals, including detailed terms of reference, and in evaluating bids for services from civil works construction companies.
- (vii) Carry out field visits of ongoing subprojects and ensure that adequate procedures for construction supervision are in place.

#### **5. Pasture Management Specialist (14 person-months)**

7. The pasture management specialist will engage in the following tasks:

- (i) Prepare a detailed project plan, schedule, and annual budgets for implementation and monitoring of sustainable pasture land management.
- (ii) Help the PMU (a) recruit national staff for the sustainable pasture land management activities; (b) prepare terms of reference and contract service providers to carry out social and environmental surveys and plan and supervise the pasture improvement plans; and (c) allocate funds to the *aiyl okmotu* for pasture land improvements.
- (iii) Supervise and provide on-the-job training for national staff.

- (iv) Work with relevant government agencies to formalize the institutional framework for pasture land management planning.
- (v) Develop a methodology and approach for community-based pasture land management planning.
- (vi) Provide guidance, capacity development, oversight, and quality control and assurance for the preparation of pasture land management planning activities.
- (vii) Provide advice and oversight in relation to the allocation of funds for implementing *aiyl okmotu* pasture land improvement plans.
- (viii) Design and develop a pasture land monitoring system to collect data on various pasture land management indicators.
- (ix) Design and supervise the development of a pasture land management information system for pasture land management indicators in consultation with the Central Asian Countries Initiatives for Land Management (CACILM) with provision for data collection by remote sensing (satellite imagery) and the establishment of a spatial geographic information system (GIS) database.
- (x) Supervise socioeconomic surveys, surveys of the condition of pasture land forage, and preparation of pasture boundary maps.
- (xi) Evaluate the effectiveness of pasture land management and planning activities for incorporation into a good practice manual on sustainable pasture land management.

#### **6. GIS Specialist (3 person-months)**

8. The GIS specialist will undertake the following activities:

- (i) Design, develop, test, and deploy the pasture land management information system.
- (ii) Supervise and provide on-the-job training for national staff.
- (iii) Design and develop a pasture land management information system for pasture land management indicators in consultation with CACILM.
- (iv) Assist with the acquisition of remote sensing imagery and develop a database to support pasture land planning and management activities for selected geographic areas.
- (v) Develop capacity for creating remote sensing images, GIS layers, and other types of data and for data entry, data analysis, and reporting in relation to pasture land management information.
- (vi) Prepare annual monitoring reports on pasture land management indicators.

#### **7. Orchard Management Specialist (5 person-months)**

9. The orchard management specialist will engage in the following tasks:

- (i) Prepare a detailed project plan, schedule, and annual budgets in relation to the implementation and monitoring of sustainable orchard management.
- (ii) Help the PMU (a) recruit national staff for the sustainable orchard management activities; (b) prepare terms of reference and contract service providers to carry out surveys and plan and supervise orchard improvement plans; and (c) allocate funds to the *aiyl okmotu* for orchard improvements.
- (iii) Supervise and provide on-the-job training for national staff.
- (iv) Work with the relevant government agencies to assess the condition of orchards and make recommendations for improved management and restocking of orchards.
- (v) Develop capacity in relevant government agencies and among project staff and/or contractors to conduct orchard management planning.
- (vi) Provide advice and oversight in relation to the allocation of funds for implementing *aiyl okmotu* orchard improvement plans.

- (vii) Design and develop an orchard monitoring system to collect data on the condition of orchards.

#### **8. Gender and Community Development Specialist (4 person-months)**

10. The gender and community development specialist will undertake the following tasks:
- (i) Help the PMU recruit national staff and supervise and provide on-the-job training to ensure effective implementation of the gender action and community participation plans.
  - (ii) Provide training to staff of the PMU; the MAWRPI; the Project Steering Committee; key service providers; WUA support units, oblasts, raions, *aiyl okmotu*, and WUAs and other community-based groups on the Project's gender and farmer and community participation issues and on measures to address them.
  - (iii) Identify nongovernment organizations and formal and informal community-based organizations in the Project area, such as women's groups and farmer groups, that can be used for community mobilization under the project components.
  - (iv) Monitor implementation of the community participation and gender action plans in all subproject areas and provide necessary interventions so that gender and social considerations are not neglected.
  - (v) Exchange information on a regular basis with other development partners in the project areas, such as funding agencies and nongovernment organizations, on relevant gender and community development issues, including conflicts among community members and ways to resolve them.
  - (vi) Ensure that all terms of reference and service contracts reflect provisions of the gender action and community participation plans.
  - (vii) Review reports from service providers to monitor the gender and social impacts of project components and regularly provide assessments to the PMU for necessary action.
  - (viii) Work closely with the monitoring and evaluation specialist to ensure the inclusion of gender- and poverty-related indicators; monitor the level of participation by poor farmers; and collect data disaggregated by gender, ethnicity, household income level, and other social parameters.
  - (ix) Ensure that the baseline survey, farm surveys, project reporting system, and capacity building include data and technical areas related to gender and social development issues.

#### **D. Reporting**

11. The team leader will report to the project coordinator. Other international consultants will report to the team leader. All consultancy team support staff will report to the team leader. The team leader will supervise the preparation and ensure the quality of the PMU's quarterly and annual reports, but the preparation and translation of quarterly project reports will ultimately be the responsibility of the project manager. The consultancy team will not prepare separate quarterly or annual reports, but will incorporate aspects of management relating directly to the consultancy team (such as planned and actual international consultancy inputs) into the PMU's reports. The international consultancy company will, however, prepare a draft final report outlining the activities and achievements of the consultancy team 2 months before completion of the contract and a final report on completion of the contract to be submitted to ADB and the MAWRPI.

## SUMMARY POVERTY REDUCTION AND SOCIAL STRATEGY

<b>A. Linkages to the Country Poverty Analysis</b>			
<b>Is the sector identified as a national priority in country poverty analysis?</b>	<input checked="" type="checkbox"/> Yes  <input type="checkbox"/> No	<b>Is the sector identified as a national priority in country poverty partnership agreement?</b>	<input checked="" type="checkbox"/> Yes  <input type="checkbox"/> No
<p><b>Contribution of the sector or subsector to reduce poverty in the Kyrgyz Republic:</b>            The national poverty reduction strategy 2003–2005 has set private sector-led, pro-poor economic growth through improved market access and an enhanced production base in the agriculture sector and in rural areas as one of its key priorities. The follow-on strategy—the Country Development Strategy 2007–2010<sup>1</sup>—indicates that the agriculture sector will continue to be a priority. Both the national poverty reduction strategy 2003–2005 and the country development strategy 2006–2010 are medium-term plans for implementing the comprehensive development framework 2010, which aims to reduce income poverty from 52.3% in 2000 to 26.5% in 2010. So far, the country is on track to achieve this goal: the incidence of income poverty has fallen steadily, reaching 39% in 2003.<sup>2</sup> However, continuous efforts in relation to pro-poor growth are needed to achieve the comprehensive development framework 2010 goal as well as Millennium Development Goal 1.</p> <p>The agriculture sector accounted for more than 33% of gross domestic product in 2000–2004. When combined with agroprocessing and agriculture services and trade, the agriculture sector contributes more than 40% of gross domestic product. The sector also accounts for more than 50% of total employment.<sup>3</sup> With a shrinking nonagricultural employment market, reliance on the agriculture sector has been growing, which has led to economic growth since 1996. The continuous growth in the sector caused by the shift from subsistence agriculture to commercial production will have a significant positive effect on the growth of other sectors through increased demand for nonagriculture products by rural households, as well as on employment.</p>			
<b>B. Poverty Analysis</b>		<b>Targeting Classification:</b> General intervention	
<p><b>What type of poverty analysis has been carried out?</b>            The social assessment carried out as part of Project preparation<sup>4</sup> included the following types of poverty analysis: (i) socioeconomic poverty profiles in the proposed project areas, and (ii) impact of the Project on poverty and the poor from the perspective of equity or inclusiveness. The experience of the ongoing Agriculture Area Development Project and the World Bank-assisted Onfarm Irrigation Project provided a significant amount of information related to poverty and institutional and social impacts. As the Project is categorized as a general intervention, a full poverty analysis was not conducted.</p> <p><b>Poverty Data.</b> During project preparation, geographic targeting of poorer raions (was considered as one of the selection criteria using the most widely available poverty classification (nonpoor, poor, very poor, and extremely poor) upon which the Ministry of Labor and Social Protection bases the provision of social assistance. However, the Project's social assessment confirmed the unreliability of the data because of the widespread practice of households making informal payments to local government staff so as to obtain social assistance. Hence the geographic targeting was dropped. Nonetheless, available information indicates the generally high incidence of poverty in the southern oblasts. According to the National Statistics Committee, compared with the 42.9% incidence of poverty at the national level in 2004, the poverty level in Batken, the poorest oblast, was 77.8%, with rural poverty standing at 82.9%. Using data from the Ministry of Labor and Social Protection, which uses monthly household incomes as thresholds, 57% of the population of the nine proposed project raions were classified as below the poverty line (i.e., poor, very poor, and extremely poor) in 2005.</p>			

<sup>1</sup> The Country Development Study 2007-2010 has been approved by the Government and submitted to Parliament for its consideration.

<sup>2</sup> Starting from 2003, a new poverty line was adopted and the consumption-based poverty measurement was officially adopted. Using the new poverty line, the incidence of poverty was 43.5% in 2005, compared with 47.9% in 2003 and 42.9% in 2004.

<sup>3</sup> ADB. 2006. TA 4438 Final Report. Manila (July).

<sup>4</sup> It involved (i) a literature review and a statistical review; (ii) a household survey of 92 households, including 33 female household heads; (iii) a series of focus group discussions; and (iv) a number of semistructured interviews with key stakeholders.

**Land and Cropping Patterns.** Distinctions between the population living in the uplands (32% of that in the three oblasts) and the lowlands (68%) are important in terms of landholding size, cropping patterns, and poverty. A typical upland farmer in the proposed project area has 0.5 hectares (ha) of irrigated arable land, 0.72 ha of rainfed arable land, and access to 12 ha of village pastures. Upland farmers typically grow cereal crops, sunflowers, and potatoes and other cash crops. Jalalabad is unique in its production of walnuts and pistachios on land leased from forest farms (administered nationally) or local administrations. Livestock is an important source of cash income. The incidence of poverty is higher among upland farmers than among lowland farmers. A typical lowland farmer has 0.6 ha of irrigated arable land, 0.29 ha of rainfed arable land and access to an average of 3 ha of village pastures. Lowland farmers tend to grow cereal crops, sunflowers, cotton, vegetables, and fruit trees, and also engage in some livestock production. Both upland and lowland farmers achieve basic household food security, but their financial security is fragile and they experience a cash deficit most of the year that often leads to some accumulation of debt. Farmers' mechanisms for coping with financial difficulties include economic migration (to Kazakhstan, to Russia, and sometimes to the city of Bishkek), which is most prevalent in Batken; sale of assets; leasing their lands; sales of fruit, milk, and other produce from their household plots, which are normally for household consumption; and borrowing money. Demand for affordable credit is high. Livestock is becoming an increasingly popular means of livelihood, increasing the pressure on land degradation.

While the vast majority of land has been distributed since 1994, the land sales market is largely inactive. Even though the southern oblasts have been ahead of the north in relation to land distribution, legal disputes related to unclear ownership, restrictions on land use, restrictions on women's rights to inherit land, and other issues are still not uncommon. Twenty-five percent of arable land has been earmarked for the Land Redistribution Fund, administered by *aiyl okmotu*, at least 20% of which has to be leased to poor households at preferential rates. However, the capacity to implement Land Redistribution Fund management varies across *aiyl okmotu* and is generally low. In addition, household size is typically large, especially for the bottom quintile of the population, which has an average of 6.1 family members per household, and this contributes to the problem of land fragmentation.

**Social Cohesion.** Although much progress has been made in terms of structural reforms, the erosion of social capital (e.g., mutual community trust and assistance) continues, accelerated by migration and growing gaps between the better-off and the poor within communities. The extent of migration, which is more frequent among men, is not well documented, but various interviews with locals indicate that migration averages 20–30% of the male population. While the traditional mutual help systems, such as *ashar* (mutual exchange of labor among kin and neighbors) still exist among poorer households, the better-off tend to set up social networks along with production functions. Conflicts and tensions over water and, to a lesser extent, land is common. Most cases are resolved within the community, e.g., by the dispute resolution commissions of water user associations (WUAs), but some WUAs report court cases.

**Social Accountability.** During the Project's social assessment, fewer than 40% of household survey respondents believed that *aiyl okmotu* represented community members' needs. Community members, and especially the poor, often see *aiyl okmotu* leaders as abusing their power in relation to deciding who is eligible for access to credit, training, and agricultural inputs and machinery. WUAs, whose membership ranges from 500 to 2,500 households, are too large for a community-based institution and are often perceived as a replica of *aiyl okmotu*. More than half the respondents did not know what the WUAs' objectives were, as the training and communications provided by the Department of Water Resources to the WUA support units focuses on WUA councils and not on the members. Smaller neighborhood-based self-help groups, which are often organized by local nongovernment organizations (NGOs), are considered to be more important and more relevant to the average farmer. The implication for the project design is that the selection of village advisers, farmer field school trainees, and WUA subgroup leaders will have a major impact on project effectiveness, and that the process of selection will need to be transparent to community members.

**Border Issues.** Tensions over water sometimes go beyond the community level and may become a border issue. In the raion of Kadamjay in Batken Oblast, for example, most *aiyl okmotu* border Uzbekistan. The Isfara River flows in and out of both countries several times. WUA members in Markaz, Kadamjay, reported a case to the project preparation team in which the upstream Uzbek community diverted water away from the Markaz community and the latter retaliated by asking another Kyrgyz community to stop the flow of water back to the Uzbekistan side. Similar cases have also been reported in other parts of the oblast. The unique border between the Kyrgyz Republic, Tajikistan and Uzbekistan, as well as the existence of a number of enclaves of Uzbek territory within Batken, make cross-border trade and free movement difficult. Efforts by NGOs such as Mercy Corps to build peace at a community level across borders in the Ferghana Valley have been stalled since the Andijon incident in Uzbekistan in 2005.

**Ethnicity.** While the south includes a mosaic of ethnic groups (Kyrgyz 70.0%; Uzbeks 27.0%; Russians 1.0%; Tajiks 0.6%; and others such as Tartars, Turks, and Uighurs), habitation patterns in rural communities are generally along ethnic lines. In the project areas, available information indicates that discrimination against minorities is unlikely to be an issue, while the tension between the two dominant ethnic groups (Kyrgyz and Uzbeks) may be an issue, particularly across the border. Within communities, the approach should not be to protect any particular group, but to ensure equal opportunities for all ethnic groups through broader community participation.

**Gender.** As detailed below and in the gender action plan, men and women are experiencing the transition and poverty differently. Unlike other neighboring ethnic groups, the Kyrgyz enjoyed relatively equal partnerships between the two genders until the Soviet system collapsed. The increasing pressure on women's reproductive role resulting from the erosion of the social safety net; the increasing vulnerability of women because of the re-emergence of old traditions; the perceptions in relation to women and girls manifested in bride theft, polygamy, domestic violence, and human trafficking; and the growing gender disparities in public representation and employment opportunities are notable. In the south, while women account for 70% of the labor force in agriculture, opportunities related to training, credit, and decision making are especially limited in the agriculture sector. The feminization of agriculture is particularly prevalent in the south, where many men (although also women) migrate to the Russian Federation, Kazakhstan, and Bishkek.

**Project Impact on Poverty and the Poor.** The Project is categorized as a general intervention, as its direct beneficiaries are farming households with small allocated land plots in the project area, which includes about nine raions in the three southern oblasts of Batken, Jalalabad, and Osh. The primary beneficiary group in the short term will be those male and female farmers who are capable of taking risks to expand their production and marketing by capturing the opportunities provided by the Project.

The development of a strategic nucleus is a prerequisite for employment generation based on agriculture and agroindustry and an increase in household incomes among a larger group of poor households in the medium term. The Project also complements a number of interventions by other funding agencies and NGOs in the project area specifically targeted at the poor and the marginalized, including female-headed farm households, e.g., the US Agency for International Development through Winrock International and Mercy Corps, the European Union, German development cooperation through Deutsche Gesellschaft für Technische Zusammenarbeit, SDC (Swiss Agency for Development and Cooperation) United Nations Development for Women, Agency for Technical Cooperation and Development, and the Community Development Investment Agency.

Furthermore, the following inclusive elements of the Project will enhance its pro-poor nature: (i) the inclusion of pro-poor activities in the service provider contracts where possible, such as the provision of training in household plot management, vegetable growing, livestock breeding, and other topics of concern to the poor; (ii) the inclusion of microfinance wholesaler support in the credit component in addition to the provision of finance for agribusinesses; (iii) the enhanced awareness raising among members and households in relation to the functions and responsibilities of WUAs, not just among WUA council members; and (iv) the participatory nature of community-based planning for land use and natural resource management (e.g., of pastures) through participatory rural appraisal and other community mobilization processes.

### C. Participation Process

**Is there a stakeholder analysis?**  Yes  No

During project preparation, stakeholder analyses and extensive stakeholder consultations were conducted at a various levels, including (i) institutional analysis of value chain actors and supporters, (ii) social assessment, (iii) three participatory stakeholder workshops,<sup>5</sup> and (iv) WUA selection meetings. The value chain stakeholder analysis included a strengths, weaknesses, opportunities, and threats analysis for each key institution, leading to the final design of the agribusiness component. Each project component involves a different set of stakeholders, but these can broadly be categorized as (i) private sector service providers, e.g., farm advisory service providers, legal service providers, financial institutions, agribusiness advisory service providers, input suppliers, machinery contractors, and cooperatives; (ii) central ministries, including the Ministry of Agriculture, Water Resources, and Processing Industry and others represented on the Project Steering Committee); (iii) local administrations, that is, oblasts, raions and, *aiyl/okmotu*; (iv) community groups, e.g., WUAs and livestock and pasture management committees; (v) individual farmer beneficiaries (male and female, local elite and poor); and (iv) funding agencies and civil society groups working in the sector or in the project oblasts. The key institutional approach of the Project is to establish effective links between these stakeholders to promote pro-poor growth. In particular, performance-based contracts will be used with the private sector partners to provide appropriate incentives.

**Is there a participation strategy?**  Yes (Appendix 12 Community Participation Plan)  No

Participatory processes at the community level are crucial to avoid unnecessary conflicts, especially over water; to prevent from creating a sense of inequality along ethnic lines; and to alleviate the helplessness and cynicism of those groups that are often excluded within the community, such as the poor and women. The financial and institutional sustainability of WUAs and community-based pasture management institutions depends on the accountability and inclusiveness forged by the participatory process.

<sup>5</sup> Financed by ADB. 2004. *Technical Assistance for Building Capacity for Participatory Approaches to Poverty Reduction in ADB Operations (Cofinanced by the Cooperation Fund in Support of the Formulation and Implementation of National Poverty Reduction Strategies and by the Poverty Reduction Cooperation Fund)*. Manila (TA 6176-REG, approved on 14 July).

**D. Gender Development****Strategy to maximize impacts on women:**

The Project's social assessment, the midterm gender evaluation of the ongoing Agriculture Area Development Project, and the existing literature on women in agriculture in the country provide a good account of gender issues in agriculture for application to the three southern oblasts. The welfare cuts and the disappearance of child care support through collective farms and state farms disproportionately affected women's competitiveness in the labor market, driving them to take up lower-paid work. In the south, where mechanization of crop production is less advanced than in the north, women's contribution to agricultural labor is higher and is reported to be around 70% of the total labor force in the sector. One impact study among customers and noncustomers of members of the Association of Agribusinessmen of Kyrgyzstan indicates that as production increases, women's workload as sellers of agricultural produce increases. Their contribution to farm household incomes is significant, especially in the south, but their representation in decision making in water management, farm development training, and agribusiness enterprises is marginal. About 10% of all farm households are headed by women. Even though the incidence of poverty is statistically higher among male-headed households than female-headed households, female household heads are disadvantaged in terms of access to fair representation and services.

The key gender issues relevant to the Project include (i) the hesitance of women when self-selecting for agricultural training and community representation because of pressures to follow social norms that view women as secondary to men, lack of self-confidence to enter into male-dominated activities, and lack of time; (ii) the low representation of women on WUA councils, the WUA directorate (i.e., paid positions), and audit and dispute resolution committees and as WUA village leaders, leading to their lack of understanding of the entire cropping system; (iii) the concentration on small-scale activities (e.g., household plots, microenterprises for a small amount of agricultural produce, demand for small loans over a long-term repayment period); and (iv) the customary law constraints to owning land in the case of divorce or for daughters who are married (if such cases are brought to courts, they would be obliged to divide the land under written law, but women tend to resort to local religious leaders, clan leaders, or the Court of Aksakal, which apply customary laws). Women also express interest in going beyond so-called women's projects such as handicrafts to learn about new agricultural techniques, and the Project offers a great opportunity to satisfy such emerging needs. The Project's gender action plan will address these issues to the extent possible.

**Has an output been prepared?**  Yes (see Appendix 12)  No

**E. Social Safeguards and Other Social Risks**

Item	Significant/ Not Significant/ None	Strategy to Address Issues	Plan Required
<b>Resettlement</b>	<input type="checkbox"/> Significant <input type="checkbox"/> Not significant <input checked="" type="checkbox"/> None	The Project will only involve rehabilitation of existing structures such as irrigation canals, drainage channels, small pasture infrastructure (e.g., bridges), and small marketing facilities (e.g., cooling and storage facilities), and will exclude any new construction. No works will be carried out during cropping seasons to avoid damage to crops. Therefore no land acquisition or displacement is envisaged.	<input type="checkbox"/> Full <input type="checkbox"/> Short <input checked="" type="checkbox"/> None
<b>Affordability</b>	<input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None	The pricing of services provided by the Project has fully considered beneficiaries' repayment capacity. Farm and agribusiness advisory services will be provided free of charge under the Project, although each service provider will carefully look into charging for some of the services in the long term. Basic legal advisory services will be free of charge to farmers. Existing cost-recovery methods as specified by relevant laws and regulations will be applied to credit and irrigation and drainage. Therefore, the Project will not introduce any significant affordability issues.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Item	Significant/ Not Significant/ None	Strategy to Address Issues	Plan Required
<b>Labor</b>	<input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None	<p>The country is a signatory to the International Labour Organization Convention 182 (Worst Forms of Child Labor Convention 1999). The Government assured Asian Development Bank that the Project will coordinate with ongoing programs by other development partners in the project area to prevent the worst forms of child labor.</p> <p>For any works to be contracted under the Project, contract documents will be prepared such that contractors will comply with the country's labor legislation (e.g., minimum wages, gender-equal wages, and safe working conditions). This has been included in the Project assurances.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Indigenous Peoples</b>	<input type="checkbox"/> Significant <input type="checkbox"/> Not significant <input checked="" type="checkbox"/> None	<p>The ethnic composition in the three southern oblasts is dominated by the two key groups (Kyrgyz 70% and Uzbek 27%), with Osh having a higher Uzbek population than the two other oblasts. Minority groups include Russians (1%), Tajiks (0.6%), and others such as Tartars, Turks, Uighurs, but they live mostly in cities. Experience from ongoing programs by other development partners indicates that discrimination in Project activities based on ethnicity is unlikely. Conflicts about water allocation occur across the border between the Kyrgyz Republic and Uzbekistan, but not typically within the same community across different ethnic groups. Therefore an indigenous peoples development plan will not be necessary. However, the Project's community participation plan will ensure that information about services provided by the Project will be widely shared among community members and that all ethnic groups will be given a fair chance to select community leaders to represent them.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Other Risks and/or Vulnerabilities</b>	<input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None	<p>The Project may risk widening the gap between the better-off and the poor. It includes inclusive mechanisms to minimize this while ensuring synergies with poverty-targeted interventions financed by other funding agencies in the project oblasts.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

**GENDER AND COMMUNITY PARTICIPATION PLANS**

Strategic Actions by Component	Gender Action Plan	Community Participation Plan
<b>A. Farm Development</b>		
High-quality training materials	The assessment of existing training manuals by advisory service providers will include a critical review and revision of the methodologies currently used to (i) maximize outreach to groups that are difficult to reach, such as women and the poor; (ii) ensure inclusion of area- and problem-specific needs assessment methodologies such as participatory rural appraisals (PRAs) and gender analysis; and (iii) develop training activities on maximizing vegetable and other crops grown on household plots, which are mostly managed by women. This will be ensured through the terms of reference and the performance-based contracts with service providers.	
Farmer field schools	The service provider will ensure that process for identifying farmer field school trainees by the community encourages the selection of eligible women trainees. While no quota for women will be set, the aim is for a minimum of 20% of the trainees to be women. If needed, the Project Management Unit (PMU) will link the service provider with women's nongovernment organizations (NGOs) or raion women's committees to mobilize women in the project areas to prepare lists of eligible women leaders. Given the intensive time commitment required for farmer field school trainees, assistance with child care and household management by the community and the Project will be considered. The terms of reference for and the performance-based contract with the service provider will specify the foregoing requirements.	To make trainees from the community who will be paired with master trainers accountable for other farmers from the same community and ensure further dissemination of the acquired knowledge and skills, such trainees will be selected through a participatory process within the community, so that the most respected community leaders are selected. The PMU and the service provider will pay special attention to achieving a balanced ethnic composition among the trainees selected. The terms of reference for and the performance-based contract with the service provider will specify the foregoing requirements.
Village advisory services	The service providers will ensure that the process for identifying trainees for the village advisory services will encourage eligible women. The aim is for a minimum of 25% of the trainees to be women, although the percentage may vary across the type of training to be provided. If necessary, the PMU will link service providers with women's NGOs or raion women's committees to mobilize women in the project areas to prepare lists of eligible women leaders. The PRA and gender analysis will identify the specific training needs of women farmers. Women will be encouraged to form groups for participation in training, especially on household plot management and livestock production. Women farmers will also be encouraged to form mixed male and female interest	Before the advisory services start, a PRA will be carried out to enable community members from all socioeconomic groups (including those who own or have access to household plots) to participate in advisory services prioritization. To make the village advisory services trainees responsible for others in the same farmer group (10–15 with similar agricultural interests per group) and ensure further dissemination of the acquired knowledge and skills, the trainees will be required to present written endorsements from the rest of the group to receive the training. Such group formation may also include those with no allocated land plots other than household plots if demand for such training is high among women with similar constraints.

Strategic Actions by Component	Gender Action Plan	Community Participation Plan
	groups, especially on vegetable and tree crops and onfarm water management.	The PMU and the service provider will pay special attention to achieving a balanced ethnic composition among the trainees selected. The terms of reference for and the performance-based contract with the service provider will specify the foregoing requirements.
Legal advisory services	Access to free-of-charge professional legal advisory services will significantly increase the likelihood that written laws (which favor women's land rights in the case of divorce and daughters' marriage) will be applied rather than customary laws. The PMU will ensure that the availability of such services is known to women farmers as well as to community members as a whole.	The availability of legal services will be disseminated widely to all farmers in the project area.
Credit line	The Project will encourage microfinance wholesalers to apply for the credit line available from the Project so that women and lower-income households have more access to credit.	
<b>B. Agribusiness Development and Marketing</b>		
Marketing support	The service provider will encourage women either to form female only or to joined mixed marketing groups and cooperatives. As the formation of a new cooperative may follow the pattern of village advisory services, women's representation among village advisory trainees and farmer trainees (component 1) will be strongly encouraged. The service provider will ensure the monitoring of gender-disaggregated data in relation to farmers' participation in marketing groups, cooperatives, and agribusiness enterprises.	The service provider (as specified in the terms of reference and the contract) will encourage the formation of informal marketing groups and cooperatives. Where necessary, the Project will provide organizational development support for cooperative formation in cooperation with projects by other funding agencies.
<b>C. Irrigation and Drainage Rehabilitation</b>		
Physical rehabilitation		The selection criteria for support by the Project, in line with Agriculture Area Development Project and Onfarm Irrigation Project procedures, will include the establishment of operation and maintenance funds in water user associations (WUAs) and written agreement from all WUA members to repay 25% of the costs of civil works.
WUA institutional support	During the community-based planning and monitoring of the rehabilitation works, WUA support units and the PMU will guide WUA management on encouraging women to	Evidence shows that while WUAs' institutional mechanism under the Agriculture Area Development Project and Onfarm Irrigation Project model provides

Strategic Actions by Component	Gender Action Plan	Community Participation Plan
	<p>participate in meetings and their representation as informally selected, village-level WUA leaders and to run for the next elections for WUA council members. As the number of women landowners is limited, women from member households should be encouraged to attend general and village-level meetings to understand the functions and responsibility of WUAs and the technical aspects of water management. Increased participation by women in onfarm water management training under component 1 is expected to have a positive impact on increased women's representation. The Project will require each WUA to collect gender-disaggregated data on meeting participation and institutional representation.</p>	<p>opportunities for male and female members to participate, the level of community engagement in decision making, the sense of ownership by members, the practice of repayment, the participation in operation and maintenance, the accountability of WUA councils, and the capacity to deal with disputes vary across WUAs. The following activities will address this issue:</p> <ul style="list-style-type: none"> <li>• <i>Joint planning.</i> Under the Project, a series of meetings will be held prior to the start of any works to ensure that all members understand and agree to the proposed rehabilitation priorities, timetable, financial implications, and repayment obligations. In addition to general meetings, smaller neighborhood-based meetings will be encouraged to enhance effective communication between WUA management and members. The Project's assessment of proposals will also include institutional assessment of WUAs.</li> <li>• <i>Participatory monitoring and evaluation (M&amp;E).</i> WUA members will closely monitor the performance of the contractors, ensure fair and timely payment by the contractors (in the case of paid labor), and report on the performance of WUA councils, directorate, and committees. The already existing dispute resolution committees will ensure an accountable and fair process.</li> </ul>
<b>D. Land Improvement</b>		
Pasture management	<p>The extensive community mobilization process through the PRA and other methods will ensure equal participation by men and women in pasture land management planning and community-based M&amp;E. Through the community mobilization process, community members will jointly decide on the level of gender balance in the pasture-user groups to be formulated under the Project. Training opportunities for sustainable pasture land and livestock management will be provided equally to men and women.</p>	<p>The Project will engage a qualified NGO or other service provider to facilitate community mobilization for the preparation and implementation of sustainable pasture land management plans. PRA (including land use mapping, gender analysis, and institutional assessments) and socioeconomic surveys will initially be conducted to engage community members (male and female) to identify current practices, constraints, priorities, and opportunities. These exercises will become the basis for the formulation of pasture-user groups, which will finalize the pasture land management plan through community-based consensus building.</p>

Strategic Actions by Component	Gender Action Plan	Community Participation Plan
		During plan implementation, participatory M&E will be carried out by community members through the pasture-user groups to assess effectiveness and identify areas for further improvement jointly with <i>aiyl okmotu</i> . The pasture-user groups will be also used as a grievance redress mechanism by community members to bring complaints to the attention of <i>aiyl okmotu</i> and raion administrations.
Orchard improvement	<i>Aiyl okmotu</i> , which will prepare an orchard improvement plan, will consult widely with community members. For them to better understand the needs of the poor, women, and other excluded groups within the community, smaller informal groups (e.g., neighborhood groups, informal groups associated with orchard management, women's groups) will be extensively consulted. The Project will provide expert assistance to <i>aiyl okmotu</i> in this process.	
<b>E. Project Management</b>		
Responsibility	The PMU will be responsible for overall implementation of the gender action plan and the community participation plan. Where private sector service providers are involved, the terms of reference and the performance-based contracts with them will ensure their compliance with the two plans.	
PMU consultants	The Project will engage gender and community development specialists (one international and one national) who will (i) prepare terms of references for service providers in relation to implementation of the gender action plan; (ii) develop M&E indicators and institutional arrangements for monitoring the indicators, especially gender-disaggregated data and the achievement of gender targets; (iii) monitor the performance of service providers and the achievement of project progress; and (iv) assess outputs and outcomes in relation to gender equality and community participation. The specialists will be encouraged to provide gender and participation training to selected service providers; the Ministry of Agriculture, Water Resources, and Processing Industry; oblasts; raions; and <i>aiyl okmotu</i> to enhance their understanding of the need to improve gender equality and participation by community members.	
M&E system	Results and performance indicators and baseline and review surveys will include the level of participation and engagement by community members (disaggregated by gender, poverty level, ethnic group, etc.) and the level of group cohesion forged through the Project's activities.	
Public relations	Information dissemination regarding the opportunities available through the Project will target women beneficiaries. The Project's gender action plan will also be disseminated together with information about Project components.	

**Annex J:  
Letters of Endorsement  
(GEF Operational Focal Point and UNCCD National Focal Point)**

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН  
ӨКМӨТҮНӨ КАРАШТУУ КУРЧАП  
ТУРГАН ЧӨЙРӨНҮ КОРГОО  
ЖАНА ТОКОЙ ЧАРБАСЫ БОЮНЧА  
МАМЛЕКЕТТИК АГЕНТТИГИ



ГОСУДАРСТВЕННОЕ  
АГЕНТСТВО ПО ОХРАНЕ  
ОКРУЖАЮЩЕЙ СРЕДЫ И ЛЕСНОМУ  
ХОЗЯЙСТВУ ПРИ ПРАВИТЕЛЬСТВЕ  
КЫРГЫЗСКОЙ РЕСПУБЛИКИ

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Mr. David McCauley  
Senior Environment Economist and GEF Facilitator  
Regional and Sustainable Development Department  
Asian Development Bank  
6 ADB Avenue,  
Mandaluyong City  
1550 Metro Manila  
PHILIPPINES

Subject: Endorsement of the Integrated Agriculture Management and Land Improvement Project

Dear Mr. McCauley:

We are pleased to endorse the Integrated Agriculture Management and Land Improvement Project, which has been included as part of the Central Asian Countries Initiative for Land Management (CACILM) Multicountry Partnership Framework for funding from the GEF 3 replenishment.

This project has been identified as a high priority activity in the Kyrgyz Republic National Programming Framework (NPF) for Sustainable Land Management. The NPF was developed using PDF-B resources and we have actively participated in national and multicountry consultations relating to its design.

We will provide our full support both to this project and to the entire CACILM program through the mobilization of necessary resources for their implementation.

We look forward to further fruitful cooperation and collaboration with the Asian Development Bank and all other partners in the implementation of this project.

Sincerely yours,

A handwritten signature in blue ink, appearing to read 'Omor Rustembekov'.

Mr. Omor Rustembekov  
GEF Operational Focal Point, Kyrgyz Republic

СЕКРЕТАРИАТ ПО  
ВЫПОЛНЕНИЮ КОНВЕНЦИИ  
ООН ПО БОРЬБЕ С  
ОПУСТЫНИВАНИЕМ  
И РЕАЛИЗАЦИИ ИСЦАУЗР

SECRETARIAT OF THE UN  
CONVENTION TO COMBAT  
DESERTIFICATION  
IMPLEMENTATION & CACILM  
ACHIEVEMENT

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№ 03-1 от 10.03 2006 г.

Mr. David McCauley  
Senior Environment Economist and  
GEF Facilitator  
Regional and Sustainable Development Department  
Asian Development Bank  
6 ADB Avenue,  
Mandaluyong City  
1550 Metro Manila  
PHILIPPINES

Re: Endorsement of the Integrated Agriculture Management and Land Improvement Project

Dear Mr. McCauley:

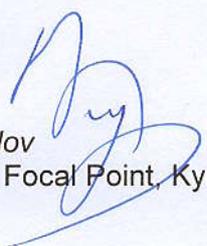
We are pleased to endorse the Integrated Agriculture Management and Land Improvement Project, which has been included as part of the Central Asian Countries Initiative for Land Management (CACILM) Multicountry Partnership Framework.

This project has been identified as a high priority activity in the Kyrgyz Republic National Programming Framework (NPF) for Sustainable Land Management. The NPF was developed during the design phase of CACILM in which we have actively participated in national and multicountry consultation activities. Both the CACILM program and this particular project are envisioned to support national initiatives that are embodied in the NPF in accordance with our commitments under the UNCCD.

We will provide our full support to both this project and to the entire CACILM program through the mobilization of necessary resources for their implementation.

We look forward to further fruitful cooperation and collaboration with the Asian Development Bank and all other partners in the implementation of this project.

Sincerely yours,

  
Kubanychbek Kulov  
UNCCD National Focal Point, Kyrgyz Republic