



Technical Assistance Report

Project Number: 39612
March 2007

Kyrgyz Republic: Preparing the Agricultural Land Improvement Project

CURRENCY EQUIVALENTS

(as of 15 March 2007)

| | | |
|---------------|---|-----------|
| Currency Unit | – | som (Som) |
| Som1.00 | = | \$0.026 |
| \$1.00 | = | Som38.10 |

ABBREVIATIONS

| | | |
|--------|---|---|
| AADP | – | Agriculture Area Development Project |
| ADB | – | Asian Development Bank |
| CACILM | – | Central Asian Countries Initiative for Land Management |
| EIA | – | environmental impact assessment |
| GDP | – | gross domestic product |
| IEE | – | initial environmental examination |
| IR | – | involuntary resettlement |
| MAWRPI | – | Ministry of Agriculture, Water Resources, and Processing Industry |
| NGO | – | nongovernment organization |
| NPF | – | national programming framework |
| PPMS | – | Project Performance Monitoring System |
| PPTA | – | project preparatory technical assistance |
| SAADP | – | Southern Agriculture Area Development Project |
| TA | – | technical assistance |

TECHNICAL ASSISTANCE CLASSIFICATION

| | | |
|---------------------------------|---|---|
| Targeting Classification | – | General intervention |
| Sector | – | Agriculture and natural resources |
| Subsector | – | Environment and biodiversity |
| Themes | – | Sustainable economic growth, environmental sustainability |
| Subthemes | – | Developing rural areas, natural resources conservation |

GLOSSARY

| | | |
|--------------------|---|--|
| <i>aiyl okmotu</i> | – | a village government body representing one or more villages |
| land degradation | – | Defined by the Global Environment Facility as “any form of deterioration of the natural potential of land that affects ecosystem integrity either in terms of reducing its sustainable ecological productivity or in terms of its native biological richness and maintenance of resilience”. |
| <i>oblast</i> | – | province |
| <i>raion</i> | – | district |

NOTE

In this report, "\$" refers to US dollars.

| | |
|-------------------------|--|
| Vice President | L. Jin, Operations Group 1 |
| Director General | J. Miranda, Central and West Asia Department (CWRD) |
| Director | K. Matsunami, Agriculture, Environment, and Natural Resources Division, CWRD |
| Team leader | R. R. Everitt, Senior Natural Resources Management Specialist, CWRD |

I. INTRODUCTION

1. The Government of the Kyrgyz Republic requested Asian Development Bank (ADB) to provide technical assistance (TA)¹ to prepare the Agricultural Land Improvement Project to increase agricultural productivity and profitability in the northern regions of Issyk Kul, Naryn, Talas, and Chui oblasts. The project is included in ADB's *Kyrgyz Republic: Country Strategy and Program Update (2006–2008)*² as a proposed loan for 2008.

2. The ADB Fact-Finding Mission³ (the mission) visited the Kyrgyz Republic from 20 to 30 November 2006. The purpose of the mission was to (i) gather information on the proposed project; (ii) assess the need of ADB assistance for the proposed project; and (iii) discuss with the Government the objectives, costs, consulting services needs, implementation arrangements, and schedule for project processing. A memorandum of understanding (MOU) was prepared and signed by the Government.

3. **Project Classification.** The proposed classification is: sector: agriculture and natural resources with subsector: environment and biodiversity; theme: sustainable economic growth with subtheme: developing rural areas; theme: environmental sustainability; with subtheme: natural resources conservation; and targeting classification: general intervention.

II. ISSUES

4. Despite continuing urbanization, the country remains a predominantly rural society, with agriculture and animal husbandry providing most employment. What happens to these sectors will continue to determine the welfare of the rural population for many years to come, notwithstanding the importance of other attributes of welfare (access to education, health services, energy, etc.) to the production dimension of rural livelihoods.

5. The agriculture sector is very important to the country's economy. It accounts for more than 33% (average for 2000–2004) of gross domestic product (GDP), 50% of employment (75% in rural areas), and 11% of exports. Of the total land area of 19.6 million hectares (ha), the largest amount, at 47%, is pasture land. Only about 7% of the country's land is arable, of which about 80% is irrigated. To date, the majority of land is used in an irrational manner, with a low return per hectare, and decreasing soil fertility.

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

7. **Land Degradation.** Lying within the Tien Shan and Pamir Mountain ranges, the Kyrgyz Republic is largely defined by the mountain ecosystems that cover some 90% of the territory. Approximately 14% of the population lives in the high mountain regions of the country (above 1,500 meters in elevation), and mountains dominate all aspects of life: economic, social,

¹ The TA first appeared in *ADB Business Opportunities* on 8 December 2006.

² ADB. 2005. *Kyrgyz Republic: Country Strategy and Update (2006–2008)*. Manila.

³ The mission consisted of Robert Everitt, mission leader, and Cholpon Mambetova, project implementation officer, Kyrgyz Resident Mission.

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 well-served by public institutions. Approximately 90% of the country's agricultural lands can be defined as lands prone to desertification, and over 40% of farmlands are already considered degraded. Land degradation matters greatly in the Kyrgyz Republic, as agriculture is the main activity of the rural population (accounting for 75% of the poor and about 80% of the extremely poor). Land degradation has led to decreased fertility of arable and natural forage lands, and decreased animal breeding capacity, resulting in decreasing incomes, declining quality of life, and migration from villages to urban areas, both within the country and abroad.

8. The case for continued support of broad-based development of agriculture (including livestock) is based on the positive performance of the sector during the last 10 years and its impact on poverty reduction. Increased agricultural output has been the main driver of the significant poverty reduction that has taken place in recent years, and the increase has occurred in spite of the fragmentation and primitivization of the sector. Poverty reduction is at the core of ADB's mandate, and ADB needs to remain engaged in rural areas. Sustained (and preferably improving) agro-pastoral output makes rural communities viable, and justifies investments in other components of rural welfare (e.g. sanitation and health). A rural poverty reduction strategy must be based on improved land management, but cannot neglect the need for better transport infrastructure, more access to credit, better marketing, or creation of a dynamic agroprocessing subsector. Constraints in these areas exist in the country, but the basic constraint is poor on-farm and pasture land management. Improvements in land management require a combination of physical improvements and institutional and policy framework reforms.

9. **ADB Interventions.** To address land degradation and support sustainable land management, ADB is leading the Central Asian Countries Initiative for Land Management (CACILM), a 10-year program of country-driven action and resource mobilization (July 2006–June 2016). CACILM supports 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 sustainable land management interventions; and (iii) improved sustainable land management and natural systems through the combined impact of appropriate enabling conditions and targeted project investments. Under CACILM, the Kyrgyz Republic has prepared a National Programming Framework (NPF) for Sustainable Land Management. The proposed project fits well within the goals and objectives of the NPF.

10. ADB's knowledge contribution in the agriculture, environment, and natural resources sector includes, among other ADB-financed initiatives: (i) TA 4405-KGZ: Study on Pricing Systems and Cost Recovery Mechanisms for Irrigation; (ii) TA 4408-KGZ: Study of the Impact of Land Reform on Agriculture, Poverty Reduction, and Environment; (iii) TA 4409-KGZ: Agricultural Strategy Formulation; and (iv) CACILM. The key results and lessons from these projects provide a good basis for implementation of the TA.

11. To date, ADB has been working in Chui oblast with the Agriculture Area Development Project (AADP) and will be working in the Batken, Jalabad, and Osh oblasts through the Southern Agriculture Area Development Project (SAADP). The AADP approach addresses 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 okmatu* (village government bodies representing one or more villages). AADP has had a substantial and visible impact on agriculture in target *aiyl okmatu* where drainage and irrigation rehabilitation has been completed and the combined impact of all project components

is now visible. AADP has demonstrated the importance of a coordinated and integrated approach to addressing key constraints and opportunities and enhancing development effectiveness. Many aspects of AADP's design and implementation are replicated in SAADP, notably the farm development and drainage and irrigation components. Other aspects (e.g. credit, agribusiness development, and marketing components) have been adapted to achieve a greater impact more rapidly. SAADP has been proactive in including a land improvement component, which addresses pasture management and orchard management constraints in the south. The reorganization of water management has also been assisted by the World Bank On-Farm Irrigation Project, and further reform will be supported under the Water Management Improvement Project.

12. The proposed project areas are Issyk Kul, Naryn, Talas, and Chui oblasts in the northern Kyrgyz Republic. These oblasts have a number of common issues and problems: (i) poor pastureland management practices and poor pasture infrastructure, with consequent overgrazing near local communities; (ii) poor animal husbandry practices including weak breeding and selection programs, and poor quality of veterinary care; (iii) declining productivity on rainfed lands in terms of yield and quality of crops, resulting from a variety of factors including lack of equipment and limited or no application of mineral fertilizers, herbicides, and pesticides; (iv) declining productivity (i.e., reduced yield and reduced areas under irrigation) and quality of the irrigated lands in many areas due to water-logging, erosion, and compaction and declining soil fertility; (v) low farm incomes due to high input costs (e.g., fuel, transport, agrichemicals) and decreases in commodity prices; (vi) absence of secure markets and processing facilities; (vii) relatively few farmers make use of available credit because of the high interest rates, relatively short repayment periods, and the need for collateral; and (viii) mixed success with new cooperatives created to take advantage of economies of scale with respect to larger land holdings and to allow for more sustainable land management practices.

13. **Project Scope.** The project concept is still under consideration, but the project may focus on improving the productivity of crop lands, pasture lands, and animal husbandry. Additional components may need to be considered to provide advisory services, access to credit, and assistance with marketing and agribusiness development. Potential interventions associated with sustainable land use and crop land improvement could include (i) introduction of progressive agricultural technologies, including crop rotation, which enrich soil fertility; (ii) scientifically-based application of mineral fertilizers; (iii) improvement of access to irrigation; and (iv) arrangements for a network of service centers in the rural areas (e.g., animal husbandry, agrochemical services, information and consulting services). With respect to pasture land improvements, the following may be considered: (i) capacity building at the local, raion, and oblast levels; (ii) rehabilitation of pasture land infrastructure (livestock droving routes, bridges, roads, sheds, and water structures); and (iii) specific capacity building of the Department of Pastures of the Ministry of Agriculture, Water Resources, and Processing Industry (MAWRPI), including creating and equipping a Pasture Inspectorate for monitoring and evaluation of the use of pastures and identification of degraded lands.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

14. The TA will help the Government design an investment project to address constraints to increasing agricultural productivity and profitability in the Issyk Kul, Naryn, Talas, and Chui oblasts in the northern part of the Kyrgyz Republic. The outcome of the TA will be the agreed

design for the resulting project. The impact of the technical assistance is sustained improvement in the productivity of agriculture land. The design and monitoring framework is in Appendix 1.

B. Methodology and Key Activities

15. The TA will be implemented with a participatory approach from the national to the village level. It will involve the private sector (farmers, agribusiness enterprises, etc.), civil society, and aid-funded projects. The participatory approach will be implemented through the TA steering committee, regional working groups, stakeholder workshops, focus group interviews, and the social survey and analysis in each region. An initial poverty and social impact assessment has been prepared (Appendix 2).

16. The TA will be divided into two phases. The key output in phase 1 will be a situational analysis of key aspects of agriculture sector and sustainable land management, which will lead to an initial assessment of alternative project designs. Phase 2 will produce a detailed feasibility study with supporting social, environmental, economic, financial, and procurement analyses.

17. The activities in phase 1 include (i) assessment of progress and lessons learned in previous ADB projects in the agriculture sector; (ii) assessment of the legal and institutional framework; (iii) update on the status of agricultural growth and development in each oblast; (iv) identification of the key issues, constraints, and opportunities with respect to developing the agriculture sector; (v) assessment of current land use and land productivity; (vi) an assessment of current land management practices; (vii) institutional and financial analyses of regional administration and other government levels and agencies, as necessary; (viii) stakeholder analysis; (ix) mapping of existing and planned development partner activities against constraints and opportunities; (x) initial assessment of alternative design approaches; and (xi) agreement with the Government on the geographical focus and scope of the proposed project. Phase 2 will prepare a detailed feasibility study that will include (i) key investment activities; (ii) institutional development activities; and (iii) clearly identified links to existing or planned investment activities of the Government, private sector, nongovernment organizations, and aid partners. Special efforts will be made to ensure that implementation capacity exists among the relevant agencies, and particularly local government agencies, for efficient and effective management.

C. Cost and Financing

18. The total cost of the TA is estimated at \$875,000 equivalent (Appendix 3). ADB will finance \$700,000 equivalent on a grant basis through ADB's TA funding program. The Government will finance the remaining \$175,000 equivalent in costs through in-kind contributions of office accommodation, data compilation, logistical support, and counterpart staff. The Government has been informed that approval of the TA does not commit ADB to finance any ensuing project.

D. Implementation Arrangements

19. MAWRPI will be the Executing Agency for the TA. A project steering committee, chaired by MAWRPI, with representatives from the Ministry of Economy and Finance, other relevant government agencies, and the oblast and/or raion governments will be established. It is expected that the proposed project will be effectively coordinated within the Kyrgyz Republic NPF for sustainable land management under CACILM.

20. It is proposed that the TA be undertaken over 9 months in two phases; it is expected to begin in June 2007 and be completed in February 2008. Approximately 72 person-months (24 person-months international and 48 person-months national) of consulting services will be required. The proposed international experts will include a team leader-economist-institutional specialist, agriculture economist, pastureland ecologist, agronomist, land improvement specialist, rural engineer, environment specialist, social development specialist, and others as needed. The proposed domestic experts will include an economist-deputy team leader, institutional specialist, irrigation systems specialist, agronomist, sustainable land management specialist, agriculture-livestock specialist, agribusiness specialist, rural sociologist, environmental specialist and others as needed. Outline terms of reference for consultants are presented in Appendix 4. The consultants will be selected and engaged by ADB in accordance with ADB's *Guidelines on the Use of Consultants* (2006, as amended from time to time). It is expected that a simplified technical proposal using the quality- and cost-based selection procedure (80:20 quality-cost ratio) will be adopted for recruiting the consulting firm. Office equipment will be procured in accordance with ADB's *Procurement Guidelines* (2006, as amended from time to time).

21. Several participatory workshops will be held to increase participation. In each region, workshops will be held at the start of phase 1 to review the agriculture situation, assess alternative design approaches, and discuss the findings and recommendations of the consultants. The project working group at the national level will meet at the start of phase 1 to guide the consultants, and at the end to reach agreement on the findings and recommendations and proposed activities for phase 2. In phase 2, workshops at the regional level will continue while project design is ongoing. More intensive workshops and focus group meetings will be held with districts and villages in the selected focus areas and with farmers, associations, private sector, and aid-financed projects to ensure a sense of ownership of and agreement on the detailed design and implementation arrangements.

IV. THE PRESIDENT'S DECISION

22. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$700,000 on a grant basis to the Government of the Kyrgyz Republic for preparing the Agricultural Land Improvement Project, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

| Design Summary | Performance Targets/Indicators ^a | Data Sources/Reporting Mechanisms | Assumptions and Risks |
|--|--|---|---|
| <p>Impact</p> <p>Sustained improvement in the productivity of agricultural land</p> | <p>Crop yields of households increase from ____ to ____</p> <p>Reduction in the area of degraded lands from ____ to ____</p> | <p>National Statistics Committee</p> <p>Project and Central Asian Countries for Land Management (CACILM) monitoring systems</p> | <p>Assumption</p> <p>Project design implemented effectively</p> |
| <p>Outcome</p> <p>Project design and feasibility study agreed upon</p> | <p>Project design and feasibility study agreed by Government</p> | <p>Final report</p> | <p>Assumption</p> <p>Effective stakeholder participation and ownership obtained</p> |
| <p>Outputs</p> <p>1. Situational analysis completed</p> <p>2. Project design and feasibility study completed</p> | <p>Inception report, week 4 Phase I report, week 11 Interim report, week 20 Draft final report, week 30</p> <p>Phase I report, week 11 Interim report, week 20 Draft final report, week 30 Final report, week 36</p> | <p>Project reports TA reviews, week 13, 22, and 32 Back-to-office reports ADB review</p> <p>Project reports TA reviews, week 13, 22, and 32 Back-to-office reports ADB review</p> <p>Final report</p> | <p>Risks</p> <p>Restrictions on access to and availability of information and key personnel</p> <p>Restrictions on access to potential project sites</p> |
| <p>Activities with Milestones</p> <p>1.1 Assessment of growth and development</p> <p>1.2 Assessment of agriculture</p> <p>1.3 Sustainable land management assessment</p> <p>1.4 Assessment of physical infrastructure</p> <p>1.5 Institutional analysis</p> <p>1.6 Stakeholder analysis</p> <p>1.7 Assessment of development partner agencies</p> <p>1.8 Alternatives analysis and preliminary design</p> <p>2.1 Detailed specification of project components</p> | | | <p>Inputs</p> <ul style="list-style-type: none"> • ADB: \$700,000 • Government: \$175,000 (in-kind) |

^a Baseline and target indicators will be determined during the project preparatory technical assistance.

| Activities with Milestones | |
|-----------------------------------|--|
| 2.2 | Preparation of the design and monitoring framework |
| 2.3 | Social assessment |
| 2.4 | Environmental Assessment |
| 2.5. | Cost estimate and financing |
| 2.6 | Financial and economic analyses |
| 2.7. | Procurement analysis and plan |
| 2.8 | Project management and implementation arrangements |
| 2.9 | Project Performance Monitoring System (PPMS) |
| 3.1 | Inception reporting (week 4) |
| 3.2 | Phase 1 report (week 11) |
| 3.2 | Interim reporting (week 20) |
| 3.3 | Draft final reporting (week 30) |
| 3.4 | Final reporting (week 36) |

ADB = Asian Development Bank.

INITIAL POVERTY AND SOCIAL ANALYSIS

A. Linkages to the Country Poverty Analysis

| | | | |
|---|--|--|--|
| Is the sector identified as a national priority in country poverty analysis? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Is the sector identified as a national priority in country poverty partnership agreement? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <p>Contribution of the sector or subsector to reduce poverty in the Kyrgyz Republic:</p> <p>The <i>Country Development Strategy</i>¹ is the major conceptual document reflecting the medium-term outlook of the Kyrgyz Republic, determining the development of basic directions and activity of the country for 2006–2010. The <i>Country Development Strategy</i> identifies development of agriculture and agro-processing as one of the six key strategic elements of the economic growth strategy. The Joint Country Support Strategy currently under development by the Asian Development Bank and four other major funding agencies has developed a results matrix. For the agriculture and agroprocessing sector, the targeted outcome is improved living standards in rural areas through strengthened market mechanisms in production and processing, and increased agricultural agriculture. Poverty statistics suggest that in 1999, 55.3% of the Kyrgyz Republic's population was poor and 23% extremely poor. By 2001, these percentages had fallen to just below 50% and 13%, respectively. Fifty-five per cent of the rural population lived at or below the poverty level. In 2003, the figure of absolute poverty had declined further to 40.8%. Nutrition-based poverty declined from 17.8% in 2000 to 9.4% in 2003. Poverty incidence in rural areas declined largely due to better performance of the agriculture sector and rising average wages. Poverty in rural areas continues to be significantly higher than in urban areas. In 2005, urban areas had 9.6% of the extremely poor and 31.6% of the poor, while the corresponding figures for rural areas were 15.6% and 35.4%, respectively.</p> <p>Proposed interventions in pasture land management and small animal husbandry in particular involve lower income farmers, which suggests a strong likelihood of contributing to poverty reduction among the poor.</p> | | | |

B. Poverty Analysis

Targeting Classification: General intervention

What type of poverty analysis is needed?

The technical assistance (TA) will require poverty analysis that is disaggregated by region (raion level) and by gender. The northern regions of Naryn, Talas, and Issyk Kul have relatively high levels of poverty. The TA will examine poverty incidence using existing data sources, supplemented through a social survey of potential beneficiaries. Both income and non-income poverty indices will be determined. Particular attention within the stakeholder analysis will be given to profiling, for each type of service, the (i) beneficiaries, (ii) negatively affected peoples, or (iii) unaffected socioeconomic groups. Data collected will include, where possible, (i) gender-disaggregated demographic, economic, and social data; (ii) the incidence of poverty and vulnerable groups; (iii) ability and willingness to pay for cost recovery, and (iv) any adverse impacts anticipated from the project.

The project preparatory TA (PPTA) poverty analysis will focus on (i) analyzing how access to services, markets, assets, resources (especially land) and/or credit is differentiated between the poor and non-poor; (ii) identifying ways of improving the poverty and inequality reduction contribution of the project; and (iii) assessing whether vulnerable groups will be worse off as a result of the project, and the need for mitigating measures. The analysis will be carried out in accordance with the *Poverty Handbook* (2006) and *Social Analysis Handbook* (2007). The poverty analysis will also examine the linkages between poverty and land degradation.

¹ Government of the Kyrgyz Republic. 2006. Draft Country Development Strategy 2007–2010. Bishkek

C. Participation Process

Is there a stakeholder analysis? Yes No

Will be part of the TA.

Is there a participation strategy? Yes No

Will be part of TA and project implementation.

The participatory approach will be at the core of the PPTA, with the purpose of both (i) collecting data, and (ii) making collaborative decisions about project designs with key stakeholders. Participatory rural appraisal techniques will be utilized during both phases 1 and 2.

D. Gender Development

Strategy to maximize impacts on women:

As part of the social assessment, the consultant will undertake a gender analysis that will determine gender inequality in access to assets, services and decision-making related to project interventions, assess the current gender division of labor, and identify ways to narrow gender gaps and empower women. In addition, activities to facilitate more active participation in the project by women will be identified and incorporated into the project design. Results of the ongoing Agriculture Area Development Project will be reviewed to assess the current level of participation in that project's activities by women, and the benefits accruing to them. These findings will be translated into activities for enhancing women's participation in the proposed project.

Will a gender action plan be prepared? Yes No

E. Social Safeguards and Other Social Risks

| Item | Significant/ Not Significant/ None | Strategy to Address Issues | Plan Required |
|---------------|--|--|---|
| Resettlement | <input type="checkbox"/> Significant <input type="checkbox"/> Not significant <input checked="" type="checkbox"/> None | | <input type="checkbox"/> Full <input type="checkbox"/> Short <input checked="" type="checkbox"/> None |
| Affordability | <input type="checkbox"/> Significant <input type="checkbox"/> Not significant <input checked="" type="checkbox"/> None | Issues of affordability and ability to pay for cost recovery measures (e.g. operation and maintenance and investment costs for rehabilitation of drainage and irrigation) will be assessed. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Labor | <input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None | <p>High levels of unemployment and underemployment exist in rural areas. The proposed project could generate potential employment opportunities.</p> <p>Core labor standards issues on project-induced labor practices, such as child labor, will be assessed in accordance with the Asian Development Bank's <i>Core Labor Standards Handbook</i> (2006), although such issues are not expected to be an issue for the project.</p> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

| Item | Significant/ Not Significant/ None | Strategy to Address Issues | Plan Required |
|---|--|--|--|
| Indigenous Peoples | <input type="checkbox"/> Significant <input type="checkbox"/> Not significant <input checked="" type="checkbox"/> None | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Other Risks and/or Vulnerabilities | <input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None | Issues will be considered during the social survey and the initial environmental examination, and appropriate mitigating measures will be prepared as necessary. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

COST ESTIMATES AND FINANCING PLAN
(\$'000)

| Item | Total Cost |
|--|-----------------------|
| A. Asian Development Bank (ADB) Financing^a | |
| 1. Consultants | |
| a. Remuneration and Per Diem | |
| i. International Consultants | 456.0 |
| ii. National Consultants | 72.0 |
| b. International and Local Travel | 50.0 |
| c. Reports and Communications | 12.0 |
| 2. Equipment ^b | 10.0 |
| 3. Training, Seminars, and Conferences | 20.0 |
| 4. Surveys ^c | 20.0 |
| 5. Miscellaneous Administration and Support Costs ^d | 15.0 |
| 6. Representative for Contract Negotiations | 5.0 |
| 7. Contingencies | 40.0 |
| Subtotal (A) | 700.0 |
| B. Government Financing | |
| 1. Office Accommodation and Transport | 50.0 |
| 2. Remuneration and Per Diem of Counterpart Staff | 90.0 |
| 3. Others | 25.0 |
| a. Data and Publications | 10.0 |
| b. Transport in Project Area | |
| Subtotal (B) | 175.0 |
| Total | 875.0 |

^a Financed by ADB's technical assistance funding program.

^b Includes two computers/printers, photocopier, fax machine, and software.

^c Environmental and/or socioeconomic surveys.

^d Includes office supplies, translation and interpretation services, and secretarial services.

Source: ADB estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. The technical assistance (TA) will be divided into two phases. The key output in phase 1 will be a situational analysis of key aspects of agriculture sector and sustainable land management, which will lead to an initial assessment of alternative project designs. Phase 2 will produce a detailed feasibility study with supporting social, environmental, economic, financial, and procurement analyses.

A. Phase 1: Situational Analysis

2. The situational analysis will be based largely on existing reports and project documents, supplemented by site visits. The Asian Development Bank (ADB) program performance evaluation report (2002) on the agriculture sector program will be reviewed. Other relevant ADB reports include documents relating to: (i) TA 4405-KGZ: Study on Pricing Systems and Cost Recovery Mechanisms for Irrigation; (ii) TA 4408-KGZ: Study of the Impact of Land Reform on Agriculture, Poverty Reduction, and Environment; (iii) TA 4409-KGZ: Agricultural Strategy Formulation; (iv) the Central Asian Countries Initiative for Land Management; (v) the Agriculture Area Development Project; and (vi) the Southern Agriculture Area Development Project (SAADP). In addition, relevant World Bank projects include the (i) On-Farm Irrigation Project, (ii) Water Management Improvement Project, and (iii) a new project expected to focus on agriculture and livestock issues at the national level.

3. **Participatory Approach.** The consultant will ensure stakeholder participation from national to community levels in project identification, design, and implementation. The degree of participation should be appropriate to ensure (i) that beneficiaries and national and local agencies reach consensus; (ii) commitment to the design and implementation arrangements; and (iii) responsibility is taken for operation and maintenance and cost recovery activities, where necessary. Participatory rural appraisal techniques will be utilized for assessment of agriculture (e.g., farmer's access to services), assessment of current land and water management practices, institutional analysis, stakeholder analysis, and identification of alternatives.

1. Agriculture Sector Growth and Development

4. The analysis of the overall growth and development of Issyk Kul, Naryn, and Talas oblasts and the northern part of Chui oblast will cover the following:

- (i) oblast growth and development trends based on national- and oblast-level statistics;
- (ii) progress of agricultural reforms in the oblast, identification of major constraints to effective implementation, and needed reforms to facilitate the transition to a market-based agriculture sector;
- (iii) achievements of oblast development efforts undertaken by the local government, private sector, and funding agencies;
- (iv) a survey of the socioeconomic and poverty situation and identification of major economic and social issues affecting the rural population, with particular attention to women and vulnerable groups, and the effects of farm restructuring, reduction of social services, and access to resources (including land) and infrastructure; and
- (v) the role of agriculture and natural resources in the oblast economy, including identification of dependency by the poor on natural resources.

2. Assessment of Agriculture

5. The assessment of agriculture will address the following aspects:
- (i) Ownership and structure of farms in the oblast and factors influencing the success of private farming. Constraints that inhibit the improvement of farm productivity and profitability will be identified using rapid rural appraisals to identify farm types, farm size, ownership, land, labor and capital availability, output, productivity, and net income disaggregated by farm enterprise, and where applicable, by gender.
 - (ii) The market potential for the oblast, the competitiveness of the current products, the potential for increased competitiveness, and constraints to achieving this competitiveness. A comparative advantage analysis of the selected project areas will be included.
 - (iii) Availability of and farmers' access to input supplies, technology, finance, markets and marketing facilities and channels, extension and research, veterinary services, and transport and distribution networks. Major constraints and opportunities will be identified.

3. Sustainable Land Management Assessment

6. Assessment of land and water resources will include
- (i) collection of baseline information on the type of soils, land forms, topography, agro-ecological zones (specifying particularly significant or susceptible vegetation cover), land use patterns (e.g., cultivation, permanent and/or seasonal livestock grazing);
 - (ii) analysis of water use patterns (e.g., rain-fed crops, irrigated crops, drainage, surface and groundwater extraction);
 - (iii) review of existing information management and monitoring systems, including project-specific databases and information systems; and
 - (iv) spatial analysis and production of maps of land use patterns, (e.g., the areal extent and distribution of land degradation, and areas vulnerable to land degradation).
7. Assessment of current land and water management practices will address current practices for (i) agricultural cropland management, (ii) pasture land management, (iii) forest management, (iv) protected area management and biological diversity conservation, and (v) water resource management. The assessment will also examine animal husbandry practices, including animal health and veterinary services.

4. Physical Infrastructure

8. The assessment of infrastructure will focus on
- (i) the condition of off-farm and on-farm drainage and irrigation infrastructure, and responsibilities for and financing of operation and maintenance; and
 - (ii) the condition of rural roads and the constraints to effective repair and maintenance.

5. Institutional Analysis

9. The institutional aspects to be addressed include
- (i) overview of the current national policy, legal, and institutional environment for management of agricultural and pasture lands;
 - (ii) assessment of major policy, legal, and institutional barriers and constraints to sustainable land management;
 - (iii) description of roles, responsibilities, and capacity of relevant oblast-level institutions (i.e., capacity of agriculture administration and agencies for delivering irrigation services, including their strengths, weaknesses, and needs, and identifying strengthening opportunities;
 - (iv) number, strength, and effectiveness of cooperatives and other agriculture-based organizations, and arrangements for supporting their development;
 - (v) involvement, and constraints to involvement, by the private sector, particularly in rural finance, input supply, machine leasing, output storage, agroprocessing, and marketing, including the role of cooperatives and farmers associations;
 - (vi) the role, approach, and activities of nongovernment organizations in the area; and
 - (vii) formal and informal training of farmers, including an assessment of current support by the Government and aid-funded institutions and identification of opportunities for expanding formal and informal training in a cost-effective and sustainable manner.

6. Stakeholder Analysis

10. The stakeholder analysis will include
- (i) identification of key stakeholders, including the private sector, nongovernment organizations, local communities, government agencies, and vulnerable groups;
 - (ii) description of direct and indirect stakeholder interests;
 - (iii) description of participation by stakeholders in decision making; and
 - (iv) preparation of a consultation and participation plan for project preparatory technical assistance phase 2, to ensure stakeholder participation from national to community levels in the finalization of the project design, and a project participation plan that determines the level and types of roles played by stakeholders during project implementation and monitoring and evaluation, including operation and maintenance and cost recovery.

7. Development Partner Agencies

11. An assessment of development partners will involve
- (i) analyzing ongoing and proposed projects, including sustainable land and water management, land distribution, farm restructuring, seed industry, livestock industry development, contract farming services, farmer advisory services, marketing, off-farm and on-farm drainage and irrigation, rural finance, and forestry;
 - (ii) preparing a database of relevant programs to highlight the objectives, scope, area focus, financing, special features, and possible links to the proposed project;
 - (iii) developing a set of lessons learned, based on previous ADB and relevant funding agency projects, that can be used as a guide in the development of the proposed project. Lessons should be specifically distinguished as to those that

have been applied (and therefore learned), and those that have been identified but not applied; and

- (iv) analyzing current initiatives for funding agency coordination; and exploring opportunities for funding agency coordination with respect to the project.

8. Alternatives Analysis and Preliminary Design

- 12. On the basis of the preceding analysis, the consultant will undertake these activities:
 - (i) Conduct a problem analysis based on participatory approach using a proven methodology. This could use an approach with problem and objectives trees that will lead to a project design and monitoring framework (see B.2, below).
 - (ii) Prepare a detailed assessment of the alternative approaches to the project design.
 - (iii) Agree with the Government on the geographical coverage of the proposed project.

B. Phase 2: Feasibility Level Project Design

13. **Participatory Approach.** The consultant will ensure broad (national to community) stakeholder participation in project identification, design, and implementation. The degree of participation should be appropriate to ensure (i) that beneficiaries, and national and local agencies reach consensus; (ii) a commitment to the design and implementation arrangements; and (iii) responsibility for operation and maintenance and cost recovery activities, where necessary.

1. Detailed Specification of Project Components

14. Subject to confirmation in phase 1, the components to be prepared for feasibility level design in phase 2 could include (i) pasture land improvements; (ii) crop land improvements; (iii) sustainable land management interventions, including policy, planning, budgeting, and investment activities; (iv) agribusiness services including market surveys, marketing, farm technology, input supply, machinery services and repair, and private agribusiness advisory services; (v) infrastructure, such as market infrastructure, on-farm irrigation and drainage, and farm-to-market roads; and (vi) institutional development (e.g. oblast and district administrations and departments of agriculture, oblast and district irrigation departments, villages, water users organizations, farmers associations, human resource and training needs, and related development of agricultural training institutions, such as technical and vocational schools).

2. Preparation of the Design and Monitoring Framework

15. Using the problem tree developed in phase 1 and after assessing project design alternatives, the consultant will prepare an initial design and monitoring framework (impact, outcome, outputs, activities, and inputs), including realistic performance indicators and targets, appropriate monitoring mechanisms, and key risks and assumptions. The framework will follow ADB format, and will be progressively modified through phase 2. The project framework will be used as a participatory design tool for the project.

3. Social Assessment

16. The consultant will identify the beneficiaries and groups to be affected by the project and make a social assessment. The analysis will be carried out in accordance with ADB's *Poverty*

Handbook (2006) and *Social Analysis Handbook* (2007) and ADB's *Gender Checklist: Agriculture*. The consultant will prepare necessary plans/strategies (e.g., gender, participation) for implementation during the project. The consultant will conduct a socioeconomic survey to profile the beneficiaries, utilizing gender disaggregated demographic, economic, and social data, where possible, and including poverty incidence, vulnerable groups, ability and willingness to pay for cost recovery, and any adverse impacts anticipated from the project. Socioeconomic surveys will be used to identify key underlying problems relating to access to services, resources and/or assets, and participation in decision-making, and may address ways to improve the situation.

17. The consultant will include a reassessment of ADB's social safeguards with respect to indigenous peoples and resettlement. The reassessment of involuntary resettlement (IR) safeguard issues will include screening all proposed components for any IR impacts resulting from land acquisition, changes in land use, and restricted access to land, and preparation of a resettlement plan in accordance with ADB's IR policy, if required. Similarly, the reassessment will validate the indigenous peoples impact status of the project; any necessary documentation will be prepared in accordance with the indigenous peoples policy.¹

18. The consultant will review relevant ADB reports including: RETA 6176 Participatory Workshop Report on the SAADP (2006); Gender Evaluation of the Agriculture Area Development Project (2005); and reports of the Rural Sociologist for the Agriculture Area Development Project and the SAADP, prepared during the project preparatory assistance studies.

4. Environmental Assessment

19. The consultant will prepare an initial environmental examination (IEE) and summary IEE in accordance with ADB's *Environment Policy* (2002) and *Environmental Assessment Guidelines* (2003), and Government environment requirements. The IEE and summary IEE will identify all potential environmental impacts and describe mitigating measures, monitoring requirements, budgetary requirements, and institutional arrangements. If an environmental impact assessment (EIA) is required, the consultant will prepare necessary terms of reference, and the EIA and summary EIA in accordance with ADB and Government requirements. The consultant will pay particular attention to sustainable land management activities under the project.

5. Cost Estimate and Financing

20. The consultant will prepare detailed cost estimates using the COSTAB software, including appropriate categories of investment, operational costs, and interest during construction. Costs will be separated into foreign exchange (including direct and indirect costs) and local cost components, and physical and price contingencies. The local cost will include duties and taxes, which will be identified separately. A financing plan will be prepared with contributions from the Government, ADB, private sector, beneficiaries, and any cofinanciers.

6. Financial and Economic Analyses

21. The consultant will assess the financial accounting and management systems of the implementing agencies, and make recommendations regarding accounting and management of

¹ ADB. 1998. *The Bank's Policy on Indigenous Peoples*. Manila.

project expenditures, contract management, and flow of funds from the Government and ADB. They will undertake financial and economic analyses; assess the relevance and usefulness of estimating rates of return at the activity or agency, component, and project levels; calculate rates of return at those levels where the estimates are most useful for making investment decisions; and assess recurrent costs and implications for participating entities in accordance with ADB's *Guidelines for the Economic Analysis of Projects*. The consultant will include sensitivity analysis, distribution of benefits, and a poverty impact assessment. The document *Key Areas of Economic Analysis of Projects* (June 2004)² of EREA, ERD should be consulted with respect to the scope of the project economic analysis and the areas of analysis relevant to project economics.

7. Procurement Analysis and Plan

22. The consultant will conduct a procurement analysis and prepare a procurement plan.

8. Project Management and Implementation Arrangements

23. The consultant, in consultation with ADB, will develop a framework or criteria to examine the executing and/or implementing agency's implementation capacity. The consultant will examine their implementation capacity and describe the organizational arrangements for project management and implementation, and prepare project implementation schedules and procurement packages for civil works, equipment, and services in accordance with ADB guidelines. They will also prepare terms of reference for international and national consultants to support implementation.

9. Project Performance Monitoring System

24. The consultant will design a project performance monitoring system that facilitates monitoring and evaluation, and which can be implemented by relevant agencies.

C. Consultant Requirements

25. These tasks will require consultants with substantial experience relevant to the Kyrgyz Republic or similar economies or institutional environments. The consultants will coordinate with other funding agencies and interact closely with Government officials and the private sector.

26. It is estimated that approximately 72 person-months (24 person-months international and 48 person-months national) of consulting services will be required. The international experts will include a team leader-economist-institutional specialist, agriculture economist, pastureland ecologist, agronomist, land improvement specialist, rural engineer, environment specialist, social development specialist, livestock and animal health specialist, and others as needed. The domestic experts will include an economist-deputy team leader, institutional specialist, irrigation systems specialist, agronomist, sustainable land management specialist, agriculture-livestock specialist and animal health specialist, agribusiness specialist, rural sociologist, environmental specialist and others as needed. A consulting firm will be selected and engaged in accordance with ADB's *Guidelines on the Use of Consultants* (2006, as amended from time to time). It is expected that a simplified technical proposal using the quality- and cost-based selection method will be adopted for recruiting the consulting firm.

² ADB. 2004. *Key Areas of Economic Analysis of Projects*. Manila.

D. Schedule and Reporting

27. It is proposed that the TA be undertaken over 9 months; it is expected to begin in June 2007 and be completed in February 2008. The consultants will produce the following reports:

- (i) The inception report, due at the end of 4 weeks, which will present a work plan for the TA period. A tripartite review meeting will be held in week 5.
- (ii) The phase 1 report, due at the end of week 11, which will present the findings of phase 1 and the recommended outline of the geographical focus, scope, and linkages with existing institutions, private sector, and aid-financed activities. It will analyze a detailed problem tree and alternative project designs. A tripartite review meeting will be held in week 13.
- (iii) The interim report, due at the end of week 20, which will show progress in preparing the project design. The report will outline the project design, including a detailed project framework, component descriptions, and preliminary implementation arrangements, as well as identifying key issues requiring resolution. A tripartite review meeting will be held in week 22.
- (iv) The draft final report, due at the end of week 30, which will present the complete design features of the project covering all aspects. A tripartite review meeting will be held in week 32.
- (v) The final report will be due by week 36, after the tripartite review and receipt of comments from stakeholders.

28. All reports are to be produced in English and Russian. Five copies (in English) of each report will be submitted to ADB, and two English and five Russian copies to the Government.