



1. Project Data

Project ID P096409	Project Name OIP-2		
Country Kyrgyz Republic	Practice Area(Lead) Water	Additional Financing P126390	
L/C/TF Number(s) IDA-49820,IDA-H3120,IDA-H7180	Closing Date (Original) 30-Jun-2013	Total Project Cost (USD) 20,550,000.00	
Bank Approval Date 19-Jun-2007	Closing Date (Actual) 31-Dec-2016		
		IBRD/IDA (USD)	Grants (USD)
Original Commitment		16,000,000.00	0.00
Revised Commitment		30,439,922.21	0.00
Actual		29,543,050.27	0.00
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2. Project Objectives and Components

a. Objectives

The project development objectives stated in the Financing Agreement (p. 4) and Project Appraisal Document (p. 5) are:

"to improve irrigation service delivery on a sustainable basis that will contribute to increased agricultural productivity among irrigation farmers".

The objectives were not revised. An Additional Financing was included in June 2011 to expand the scope of the project.



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

No

c. Will a split evaluation be undertaken?

No

d. Components

The project had three components:

I. Water User Association (WUA) Strengthening (*Appraisal Estimate: US\$4.2 million, Additional Financing Estimate: US\$ 1.2 million, Actual: US\$4.5 million*).

This component aimed to provide assistance to WUAs that were established under the first project to ensure that they are able to efficiently and productively utilize the irrigation systems under their management. The main tasks under this component included: (i) strengthening and training of WUA Support Units (SU) and WUA Board and management; (ii) improving system operation to achieve more efficient and productive water use; (iii) improving maintenance management to ensure that maintenance needs are identified and adequately financed; (iv) providing equipment, machinery, and vehicles to WUAs to provide the facilities required for effective operation and maintenance of systems; (v) expanding environmental monitoring, analysis, and action; (vi) supporting WUA-related organizations, including Water Councils, WUA Federations, and the National Union of WUAs. Funds were used procurement of local and international consulting services, goods, mainly to re-equip WUA Support Units and to provide office and field equipment, machinery, and vehicles to WAS, and operational funds for WUA strengthening and training.

II. Infrastructure Rehabilitation and Modernization (*Appraisal Estimate: US\$15.5 million, Additional Financing Estimate: US\$ 13.4 million, Actual: US\$25.9 million*).

This component aims to rehabilitate and modernize about 84,000 hectares of some 48 WUA-managed I&D systems (irrigation canals; drains; storage reservoirs cleaned, and structures repaired; and 1, outlets and other hydraulic structures constructed or rehabilitated) among which 34,800 ha of 18 WUAs were financed under the additional financing.

III. Project Management (*Appraisal Estimate: \$US1.0million, Additional Financing Estimate: US\$ 0.3 million Actual: US\$1.9 million*).

The component financed project coordination, management, procurement and financial management, as well as monitoring of project activities, environmental and financial audits, and legal assistance to WUAs.

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



Project Cost: Total project cost at appraisal was estimated at US\$ 20.7 million, and actual was US\$18.8 million. An Additional Financing (AF) of US\$15.0 million was approved in May 2011 to finance additional rehabilitation works for 18 structures and the actual disbursement was US\$13.7 million.

Financing: The IDA Grant (H3120) of SDR 10.6 million (equivalent to US\$ 16.1 million) was 98 percent disbursed and additional financing – [IDA credit (48820) of SDR 5.2 million (equivalent to US\$8.3 million) and IDA grant (H7180) of SDR 4.2 million (equivalent to US\$ 6.7 million) was approved in May 2011. IDA grant was 96 percent disbursed and IDA credit was 88 percent disbursed at project closing.

Borrower Contribution: At appraisal, the Borrower planned to contribute US\$ 4.5 million and the Borrower contribution was only (US\$ 2.9 million-65 percent). The reason for lower than planned contribution was not given by the ICR. The project team subsequently noted that: "In 2010 country financing parameters were changed in light of the budgetary situation of the Kyrgyz Republic. Under the OIP-2, Government contributed 17 percent to the "Works" category, and 10 percent of local expenditures and 30 percent of foreign expenditures under the "Consultants' Services" category. Under the Additional Financing, IDA would finance 100 percent for all categories".

Dates: The closing date of the operation was extended from June 30, 2013 to end-December 2015 through additional financing. The closing date was further extended for one year to end-December 2016 in order to complete the unfinished six schemes. Delays were due to unfavorable weather conditions as well as inadequate planning and financial management. At project closing the six schemes were still incomplete.

Restructuring: An Additional Financing was approved in May 2011 in order to scale up the project rehabilitation works. The project went through two Level II restructurings in February, 2011 and March 2015. The first Level II restructuring included a paragraph on "the operational costs" for WUAs, as these costs were not covered by the state budget. The second restructuring extended the project closing date for one year until end-December 2016.

3. Relevance of Objectives & Design

a. Relevance of Objectives

The original project development objectives were **substantially** relevant to the country, and sector strategies and needs. With the breakup of the Soviet Union government funding for the operation and maintenance (O&M) of the irrigation systems declined drastically in Kyrgyz Republic, negatively impacting the sustainability of the 631 irrigation systems covering 1.05 million hectares. In order to resolve lack of state funding, in 1995 the government instituted an irrigation service fee (ISF) to be paid by water users to the irrigation water supplier, the Department of Water Resources and Land Improvement (DWRLI) of the Ministry of Agriculture (MOA). However, the user fee remained very low, even the new Water Code, which was enacted in 2005, required annual revision of the fee. The low ISF did not enable the Department of Water Resources (DWR) to carry out adequate O&M of higher-order systems (e.g. main canals). When the state and collective farms were dissolved, farmers were left without an organization responsible for on-farm irrigation. Some voluntary efforts were made by water users but largely failed due to lack of sufficient know-how and expertise. To begin solving the problem of lack of an on-farm management organization, a law in March 2002 was enacted to allow for the legal establishment of WUAs. The first IDA-supported On-Farm Irrigation Project (OIP-1),



implemented during 2004 – 08, has had some success with the development of WUAs with 63 WUAs in the process of infrastructure rehabilitation, 13 WUA Federations were formed, and a National Union of WUAs was established, with over 186 WUAs serving 322,000 hectares. However, in spite of all the previous efforts under the first project, the government still had a large unfinished agenda: the focus of assistance to WUAs needed to be re-directed toward developing the skills necessary to sustain their infrastructure and maximize its utilization, particularly on financial sustainability and water management. There were also many remaining irrigation schemes in need of rehabilitation and modernization, which if not addressed would lead to further deterioration of infrastructure, leaving many farmers without access to adequate and timely water resources.

The project development objective was relevant to the World Bank Group's Country Partnership Strategy (CPS) (2013-2017) that recognized the important role of irrigation for the country. CPS Area of Engagement on Natural Resources and Physical Infrastructure, emphasized that the Bank would support improvement of the irrigation services delivery and rehabilitation of on-farm irrigation infrastructure, as well as WUAs, related users' organizations, and farmers, in order to improve water management and agricultural productivity.

Rating

Substantial

b. Relevance of Design

The project design logic, with clear and realistic objectives supported by relevant project activities, was adequate. The PDO, to improve irrigation services on a sustainable basis that would contribute to increased agricultural productivity among irrigation farmers, was realistic. The first component aimed to strengthen WUAs through training and technical assistance to ensure that they were able to efficiently and productively utilize the irrigation systems under their management. Project activities targeted improving system operation to achieve more efficient and productive water use; and improving maintenance management to ensure that maintenance needs were identified and adequately financed; this would highly contribute to sustainable irrigation service delivery and thereby lead to improved agricultural productivity. The second component included works for rehabilitation of irrigation systems, which would again lead to improved irrigation service delivery as well as increased agricultural productivity among farmers.

There were some weaknesses in terms of PDO indicators to measure project achievements (See M&E Design Section).

Rating

Substantial

4. Achievement of Objectives (Efficacy)



Objective 1

Objective

Objectives:

“to improve irrigation service delivery on a sustainable basis that will contribute to increased agricultural productivity among farmers. Based on this statement, this Review considers two objectives: (i) improve service delivery on a sustainable basis (ii) increase agricultural productivity among farmers.

(I) Improve Service Delivery on a Sustainable Basis, rated Substantial.

Rationale

Outputs:

Water User Association Strengthening:

- 115 WUAs have revised their Irrigation Service Fee (ISF) level (achieved target). However, the ICR did not provide information regarding the level of increase and how much additional increase is needed to cover operation and maintenance expenditures.
- 91 WUAs (out of 114) identified the minimum maintenance expenditure and used this in setting up ISF (exceeded target of 90). These WUAs passed a budget taking into account expenses for WUA asset management.
- 114 WUAs prepared asset management plans that were approved by the WUA General Assembly (exceeded the target of 90).
- Out of 115 WUAs that developed water use plans, 114 applied these plans during the 2016 vegetation period (ICR p. 21).
- 6,730 staff of WUAs were trained on water management, asset and maintenance management.
- 72 Water Councils were established and 49 of them were functioning effectively (ICR p. 22) (against the target of 74).
- 35 WUA Federations were established (against target of 37) and 15 of them were functioning effectively.

Infrastructure Rehabilitation and Modernization

- At project closure the modernization/construction works of 42 out of 48 Irrigation and Drainage schemes were completed. The remaining six schemes were to be completed in 2017 using funds from Agriculture Productivity and Nutrition Improvement Project (APNIP). The ICR did not provide description and details of type of works completed. Project team subsequently stated that: works consisted mainly of rehabilitation of canals, cross regulators, and diversion structures, all standard elements of gravity irrigation schemes and all works were completed as planned. At project completion, 691,215 ha of land were under improved irrigation and drainage services (97 percent of the target), benefiting 258,296 farmers (103 percent of target).

Outcome:

The project **substantially** contributed to improving service delivery on a sustainable basis.

The project contributed to this objective through: rehabilitation of irrigation and drainage schemes and strengthening of water user associations. In terms of rehabilitation works the project completed 42 out of 48



targeted schemes, six were to be completed after the project closed. The ICR noted that (p.12), during 2016 WUAs reported improvement in irrigation services delivered, , and significantly reduced water losses (up to 50 percent). For example, 96 percent of the targeted WUAs (100 out of 104) reported that water distribution matches the crops' irrigation water demands. The project team subsequently provided the following additional information: "85.9% of WUA representatives surveyed showed satisfaction with the timeliness of water supply. The irrigation water leakages reduced due to arrangement of reinforced concrete trays on the earthen canals. As a result, performance of rehabilitated canals increased from 55-60% to 70-80%. Prior to rehabilitation, earthen canals were operated and water slowly reached the end of canal; it took four hours to deliver water because of its leakages. After the canal was concreted and bed lining arranged, gates and valves installed at the points of water offtakes, the speed of water delivery to the tail-end of canal increased by up to 0.5 hour".

Although, the ICR did not provide evidence on the quality of construction, project team subsequently stated that quality of construction was monitored and documented through standard and established civil works contract management procedures, also extensive spot checks of contract management procedures and quality of civil works was done by the task team during supervision missions, and quality was consistently found to be satisfactory. In terms of institutional sustainability, as a result of institutional strengthening activities supported by the project, 114 WUAs developed and applied asset management plans. The ICR noted that (p. 12) in 2016 WUAs reported that the project trainings helped strengthen capacity particularly on conflict resolution, water rights arbitration as well as bookkeeping. In terms of financial sustainability, the ICR reported that (p.12) 90 percent of the required irrigation service fees (ISF) based on O&M plans was realized. Although the ICR did not provide O&M cost coverage ratios, the project team subsequently provided the following evidence: "The operating cost coverage ratio increased from 68% in 2012 to 78% in 2016. ISF in terms of cash payments increased from 25% in 2002 to 85% in 2012 to 95% in 2016, thereby also indicating a higher willingness to pay in cash (other forms are in kind and as labor participation)". The project team also noted that the project did not work with Government on increasing the O&M budgets for off-farm systems, and it is not the role of the Government to provide or supplement the O&M budgets of WUAs. Therefore, IEG concludes that there is still room for WUAs for completely cover their O&M expenditures, and since the gap is not supplemented by the Government, ISF rates need to increase further in the near future.

Rating
Substantial

Objective 2

Objective

(II). Increase Agricultural Productivity Among Irrigation Farmers, rated Substantial

Rationale

Outputs:



Outputs described above served to achieve this objective as well.

Outcome:

The achievement of this objective is rated Substantial, based on subsequent data provided by the project team. . The ICR reported that (p. 13), based on a Beneficiary Survey covering 45 WUAs and 1,500 individual beneficiaries, agricultural productivity increased up to 4 percent (on average) as a result of project interventions, notwithstanding yield decreases in 2014 and 2015 due to adverse weather. The project team subsequently noted that this increase was during the lifetime of the project. However, while the ICR and the team response was not specific about the exact time period used to measure this figure, IEG believes that the period used to capture such changes after the works were finished could have been only a limited number of agricultural seasons (either one or two), and therefore would not be sufficient to make an informed conclusion regarding agricultural productivity. However, the project team also provided the following data and information: Based on the impact evaluation study that was done to compare the project yields in the 'with' and 'without' project areas (rehabilitated schemes vs non-rehabilitated schemes), the percentage of incremental yields ranged from 6.6 % (cotton) to 13.2 % (vegetables) for Southern oblasts and for Northern oblasts the numbers ranged from 3.2 % (barley) to 10 % (orchards) in 2016. In addition, it was reported that there has been a shift to crops with higher profit margins, e.g. less area cultivated under wheat and more area cultivated under vegetables, orchards and other crops, especially in the south of the country, where most of the irrigation schemes financed under the Additional Financing are located. Based on this additional evidence, the achievement of the objective is rated substantial.

Rating

Substantial

5. Efficiency

Economic and Financial Efficiency:

The ex-ante analysis included an economic and financial rate of return calculation that was conducted based on incremental benefits from increased agricultural yields. The analysis uses a sample of two WUA representing average cropping patterns and yields for the Southern Oblasts (provinces) and the Northern Oblasts, and using Incremental yields of 15 percent for all crops (based on actual results from a group of WUAs that has benefited from rehabilitation assistance under the first project). The financial analysis estimated the impact of the project on farmers by calculating the gross income, net income and net present value of incremental benefits to farmers (including a payment of Som 1,000 per hectare irrigation service fee). The project yielded net incremental benefits with a financial net present value (FNPV) of US\$10.9 million or US\$436 per ha. Overall economic net present value (ENPV) was US\$8.6 million, and economic internal rate of return (EIRR) was 23 percent at a 12 percent discount rate.



The ex post financial and economic analysis followed similar models used in the ex-ante analysis, however, the ICR stated that (p. 29) cropping patterns and incremental yields were based on actual project data, i.e. yields lower than 15 percent (ranging from 4 percent to 13 percent based on different crops). Irrigation service fees ranged from Som 500 to Som 1,125 per ha. Project benefits were estimated to begin in 2013 after completion of rehabilitation and reach 100 percent in 2017, it was also assumed that rehabilitated systems had a life of 25 years. The results of the financial analysis were FNPV of US\$ 14.7 million or US\$ 591 per ha. The overall economic analysis showed net incremental benefits with an ENPV of US\$12.5 million and an ERR of 21.2 percent, which is well above the 12 percent discount rate.

Operational/Administrative Efficiency:

There were some operational and administrative inefficiencies. After extending the closing date of the project to 2015 due to project scale up, the closing date was extended for another one year in order to be able to complete all the works. However, 6 schemes out of 48 were left unfinished due to inadequate planning and financial management and insufficient discussions of the proposed I&D design with the WUA.

Project efficiency is rated **Modest**, due to administrative and operational inefficiencies.

Efficiency Rating

Modest

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

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal		0	0 <input type="checkbox"/> Not Applicable
ICR Estimate		0	0 <input type="checkbox"/> Not Applicable

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

6. Outcome

Relevance of the objectives and design are rated Substantial, the achievement of the objective “**to improve service delivery on a sustainable basis**” is rated Substantial the objective “**increased agricultural productivity among farmers**” is rated Substantial. Efficiency is rated Modest, due to administrative and operational inefficiencies.

a. Outcome Rating



Moderately Satisfactory

7. Rationale for Risk to Development Outcome Rating

The risk of sustainability of project investments is **substantial**, mainly due to issues of financial sustainability related risks. Regarding financial sustainability, the ICR noted that there is a risk that the government may not be able to increase irrigation service fees sufficiently to cover O&M cost in the future; and due to limited funds, the DWRLI may not provide adequate O&M for headworks and conveyance canals, or may not rehabilitate the remaining irrigation and drainage works.

However, the ICR also argued that these risks have been off-set to a certain degree due to the following: O&M responsibilities for the newly constructed or rehabilitated hydraulic structures have been assigned to the WUAs and legal options for WUAs to enter into long-term delivery contracts and to negotiate an ISF separate for each I&D system, as recently given by the Parliament. However, weak supervision and a lack of commitment to adherence to agreed-upon rules and regulations by the DWRLI, give reason to expect continuing weak governance by the DWRLI.

a. Risk to Development Outcome Rating

Substantial

8. Assessment of Bank Performance

a. Quality-at-Entry

The project benefited from the experience and the lessons gained from the first phase project.

The PDO was clear and realistic with project components focusing on capacity building for the WUAs and I&D system rehabilitation. Implementation arrangements linked government agencies and the communities involved.

Background analysis undertaken during project preparation and at the very beginning of project implementation was sound. Lessons learnt from previous project experience as well as sector reports were considered in project design; some of these were: projects should make selective investments (see below sentences for criteria used) for rehabilitation and improvements; assist irrigation agencies and water users in improving their water management capabilities; develop or strengthen their legal and institutional framework for managing water resources and promoting user participation and management; and assist in enhancing cost-sharing programs so that water users have access to reliable services and will be able to pay an ISF sufficient to carry out adequate O&M. For example, the selection of WUAs for rehabilitation had already started in early 2007 according to criteria set by the World Bank: among the 434 WUAs existing country-wide, 66 had been selected for detailed assessment. Eventually, out of those 66 WUAs, 48 were



selected to be supported by the project, based on their ensuring, among other things their financial capability to repay the required 25 percent of the rehabilitation/modernization costs. Other criteria included socio-economic needs, availability of natural resources (both water and land), and the willingness of potential beneficiaries to participate in cost sharing, as well as to accept responsibility for operation and maintenance and operation (O&M).

Risk assessment was thorough- but risk mitigation measures were not firm: the overall risk was rated 'high', and the following risks were considered: WUA management and water users would not accept the real costs of system O&M and would keep ISF levels below sustainable levels, or the government would not provide sufficient budgeting for adequate O&M on a continuing basis, to supplement ISF collected from users. In order to mitigate these risks, the project provided detailed and substantive evidence of O&M costs; the financial and social consequences of inadequate O&M financing; and the benefits to be derived from adequate levels of funding in order to raise awareness on the importance of the subject. With regard to the government's continuing inability to provide adequate O&M budgets, the project put emphasis on gradually increasing ISF, basing it on actual needs, which was made possible under the new Water Code. However, the risk of government not providing sufficient budget in the future was still the case at the end of the project.

Furthermore, the M&E framework was inadequate. The project outcome indicators did not adequately measure the achievement of the PDO. Particularly, there was no outcome indicator to measure yield increases, also no indicators to monitor O&M coverage costs to adequately measure financial sustainability of the schemes.

Hence, the World Bank's performance in ensuring quality at entry is therefore rated Moderately Satisfactory.

Quality-at-Entry Rating

Moderately Satisfactory

b. Quality of supervision

The ICR noted that (p. 15) project supervision was adequate, with frequent supervision missions (on average two per year), detailed aide memoires to address issues and candid assessment of project performance and management issues. Implementation support was further strengthened when the responsible TTL was based in the country, for follow-up project implementation during critical periods, often on a daily basis. However, there was the issue of not addressing promptly the issue of lack of funds (US\$ 1.4 million) to complete the works. It is unclear from the ICR why the Bank team did not follow up with the government to resolve this issue on time. Starting with the extension of Additional Financing on January 1, 2016, and because of not using the remaining undisbursed project funds, it was predictable that the AF budget would not be sufficient to implement all planned sub-projects by the end of the project on December 31, 2016. In spite of this very crucial development, no concrete action was taken. This lack of prompt and effective action led to an accumulated budget deficit of US\$ 1.4 million, and the non-completion of six sub-projects on December 31, 2016.



The project team subsequently reported that: “the cost-overruns were the result of variation orders (change orders under already awarded contracts) for additional works, thus increasing the contract prices. These variation orders were issued by the PIU, without requesting no-objection from the Bank as this was not required according to the procurement guidelines. However, the Bank was not informed in a timely manner by the PIU of the increased contract prices and resulting budget deficit. The issue was dealt with the moment it came to the Bank’s attention in consultation with Government. Financing for cost overruns were going to be provided by the related Agriculture Productivity and Nutrition Improvement Project (APNIP) project, however since APNIP came effective only in September 2016, implementation of civil works was paused in summer 2016, causing delays”.

Quality of Supervision Rating

Moderately Satisfactory

Overall Bank Performance Rating

Moderately Satisfactory

9. Assessment of Borrower Performance

a. Government Performance

The ICR noted (p. 16) the Government commitment was high at the time project preparation, as well as during the time of social unrest. However, long delays in the recruitment of two new PIU Directors had a very negative impact on project implementation. Additionally, between 2008 and 2012, the government failed to carry out the planned and essential training of WUAs and WUA staff, due to lack of funding from DWRLI. Also, although the salaries of the WUA SU staff were eventually increased, DWRLI failed to ensure full and timely compliance of this requirement upon receiving detailed directions from the World Bank. The changes in PIU management may also have contributed to the government’s failure to address in a timely manner issues raised by the World Bank’s project team. However, the DWRLI Director obviously did not arbitrate and mediate persistent problems quickly enough: solutions proposed by the World Bank’s team were not promptly followed up on and contributed to repeated delays. The government’s performance is therefore rated ‘moderately unsatisfactory’.

Government Performance Rating

Moderately Unsatisfactory

b. Implementing Agency Performance

The Project Implementation Unit (PIU) under the DWRLI, benefited from the first phase project experience. PIU assistance given to the regional staff of DWRLI as well as to WUAs, and the work of the WUA SU staff was reportedly appreciated. Supervision of project implementation and quality control of works by PIU staff were satisfactory. Although environmental monitoring recommendations were not always followed up in a timely manner, safeguard requirements were fulfilled.



However, there were still some weaknesses: (i) Financial management and procurement revealed weaknesses, particularly in monitoring budget developments in the face of currency exchange rate changes, and in giving due diligence to prepare adequate technical specifications for equipment to be procured. Further training in procurement and financial management was necessary, but was not completed by the end of the project. (ii) There were problems with implementation of the Grievance Redress Mechanism (GRM), but no further details were provided by the ICR.

Implementing Agency Performance Rating

Moderately Satisfactory

Overall Borrower Performance Rating

Moderately Satisfactory

10. M&E Design, Implementation, & Utilization

a. M&E Design

The M&E indicators had some shortcomings, as increased agricultural productivity part of the objective as well as sustainability (particularly regarding financial sustainability through O&M coverage costs), were not measured adequately.

Nevertheless, a systematic ecological monitoring to evaluate the environmental impact of I&D system rehabilitation as well as monitoring quantity and quality of irrigation and drainage water was set up and carried out well.

b. M&E Implementation

Core project M&E was focused on procurement and financial management, and occasionally amendments or corrections of PIU decisions were made, based on project M&E without prior consultation with the World Bank. No other detail was provided by the ICR on M&E implementation. The ICR also mentioned an impact assessment conducted by the Institute for Development Evaluation that evaluated the impact of projects (including this project) on WUAs in the Kyrgyz Republic. However, it is not clear how attributable the findings are to the project and if there was any specific assessment of project indicators.

c. M&E Utilization

The ICR (para 37) finds M&E reports to have been instrumental in raising and addressing a variety of issues related to the lack of progress in WUA development, or the design of I&D systems. However, the influence of specific M&E reports to changes in implementation is not clear.



M&E Quality Rating

Modest

11. Other Issues

a. Safeguards

The project was classified as Environmental Safeguard Category B and triggered three safeguard policies: Op 4.01 -Environmental Assessment, OP 4.37- Safety of Dams, OP 7.5 - International Waterways were triggered. The ICR only mentioned OP 4.01 as the triggered policy. The Project Appraisal Document (PAD) noted that (p. 22), regarding Safety of Dams Safeguard, its application would depend on whether any irrigation systems having water storage reservoirs would be included in the project or not. Also, the PAD stated that as there will not be any enlargement of existing irrigation systems or development of any new irrigation areas, project interventions are not expected to adversely affect the quality or quantity of water flows to downstream riparian states. Also, any potential changes in water flow or deterioration in water quality during the construction works would be mitigated through implementation of the Environmental Management Plan. The ICR did not provide information on compliance.

The ICR did not give any information on Safety of Dams or International Waterways safeguards, but noted that (p. 9) there were no outstanding environmental or social safeguards issues in the project. Although the PAD did not include Involuntary Resettlement as a triggered safeguard, the ICR mentioned that the Bank's operational policy for involuntary resettlement (OP 4.12 and OD 4.30) was duly considered for project preparation, with no change needed for the second phase project. In only one case, in WUA "Kara-Dobo" of the Kadamjai raion (district) in the Batken oblast, the owner of land needed for a conveyance canal had to be compensated with an adequate piece of land; this was negotiated by mutual agreement.

b. Fiduciary Compliance

Financial management. The Project developed a Financial Management Manual that guided the financial management and internal control process. This was considered adequate by the Bank. However, starting with the extension of Additional Financing on January 1, 2016, and because of not using the remaining undisbursed project funds, it was predictable that the AF budget would not be sufficient to implement all planned sub-projects by the end of the project on December 31, 2016. In spite of this very crucial development, no concrete action was taken, either by PIU or DWRLI. This lack of prompt and effective action led to an accumulated budget deficit of US\$ 1.4 million, and the non-completion of six sub-projects on December 31, 2016.

Procurement was carried out in accordance with agreed upon procedures. Supported by the Bank's procurement specialist, the PIU complied in general with the World Bank's procurement rules and regulations. However, a procurement post-review conducted by an independent audit firm in mid-2015 noted



some minor shortcomings, which were rectified by the end of 2015.

c. Unintended impacts (Positive or Negative)

No unintended impacts were reported.

d. Other

12. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Moderately Satisfactory	Moderately Satisfactory	---
Risk to Development Outcome	Substantial	Substantial	---
Bank Performance	Satisfactory	Moderately Satisfactory	Quality of Entry is rated MS due to inadequacy of risk mitigation arrangements as well as M&E design.
Borrower Performance	Moderately Satisfactory	Moderately Satisfactory	---
Quality of ICR		Modest	---

Note

When insufficient information is provided by the Bank for IEG to arrive at a clear rating, IEG will downgrade the relevant ratings as warranted beginning July 1, 2006.

The "Reason for Disagreement/Comments" column could cross-reference other sections of the ICR Review, as appropriate.

13. Lessons

The ICR provided comprehensive lessons. The most important follows with some modification of language:

Capacity increase for WUAs is crucial for sustainable irrigation services. Technical Assistance (TA) contributes to enabling WUAs to become self-sustaining and to appropriately manage their rehabilitated and modernized on-farm I&D systems. Important elements of this TA are asset management, conflict resolution, and planning. For WUAs that need longer support, it is also important to get additional donor support as well as government budget support to continue improvement of their capacity and I&D system.



Design of I&D schemes to be rehabilitated need to be carefully carried out through sufficient beneficiary engagement. The project experience showed that a significant number of the I&D scheme designs proved to be of insufficient quality once construction work began, this was due to oversights in the planning phase and/or lack of communication with the potential beneficiaries. More interaction among farmers, WUAs, PIUs, oblast and raion staff as well as project preparation staff is needed when designing the next irrigation rehabilitation project.

Investments through the whole value chain is needed to increase incomes of farmers and also to satisfy market demands. Irrigation investment is only one component of the agricultural value chain and it needs to be accompanied by other investments along the chain including creation of enabling environment for processing, marketing and export facilities and opportunities.

14. Assessment Recommended?

No

15. Comments on Quality of ICR

The ICR was quite comprehensive with candid articulation of implementation challenges as well as good formulation of lessons. However, the safeguards section did not sufficiently report on safeguard compliance and mitigation measures. The quality of analysis and evidence in efficacy section regarding financial and technical aspects of sustainability for service delivery objective, as well as the achievement of agricultural productivity increase objective was not sufficient.

a. Quality of ICR Rating

Modest