ICR Review

Operations Evaluation Department

Report Number : ICRR11954

1. Project Data:		Date Posted : 12/17/2004		
PROJ ID : P062682			Appraisal	Actual
Project Name :	Kyrgyz Flood Emergency Project	Project Costs (US$M)	14.1	12.7
Country :	Kyrgyz Republic	Loan/Credit (US$M)	10	9.55
Sector(s):	Board: RDV - Flood protection (69%), Irrigation and drainage (25%), Central government administration (6%)	Cofinancing (US$M)	4.1	3.15
L/C Number :	C3166			
		Board Approval (FY)		99
Partners involved :	Austrian grant	Closing Date	09/30/2001	03/31/2004

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2. Project Objectives and Components

a. Objectives

The objective of this Emergency Rehabilitation Loan was to rehabilitate or reconstruct (i) damaged flood protection infrastructure along rivers; and (ii) irrigation infrastructure, which, if unattended could lead to loss of human life and economic losses beyond acceptable levels.

b. Components

1. Rehabilitation and Reconstruction of River Protection and Irrigation Infrastructure, and Establishment of a Flood Warning System (Appraisal - US$9.4 million; Actual - US$9 million) This included a) repair and rehabilitation of 8.8 km. of river embankments along 5 rivers; b) rehabilitation or reconstruction of 23 deflector spurs; c) construction of 12 irrigation schemes inside river beds, including 19 intake and protection spurs; d) urgent repair or reconstruction works outside river beds for 4 irrigation schemes and spillways from debris collection dams; and e) repair and reconstruction of river gauging stations and flood warning systems in the Kugart River basin .
2. Project Management and Implementation Support (Appraisal US$0.60 million: Actual US$0.55)

c. Comments on Project Cost, Financing and Dates

The Credit was extended twice and was completed two and a half years later than expected at appraisal . During initial implementation, it became clear that rather than rebuilding existing infrastructure, more durable flood protection structures needed to be designed and constructed . As such, it became a full-fleged infrastructure investment project and was extended two years. The second delay occurred because work was halted during floods in early 2003. The US$10 million IDA credit was fully disbursed at US$9.55 million, with the shortfall due to the SDR exchange rate devaluation over the project period.

3. Achievement of Relevant Objectives:

The project largely met its overall objectives and in some cases, exceeded its component objectives . The appraisal projected that the project would protect 25 villages with a total population of 38,000. The ICR reports protection of 24 villages with a total population of 40,000. This was in the most densely populated region in Kyrgyzstan with a high incidence of poverty.

By component:

1.a) and b) Exceeded component objectives: Rather than 8.8. km of embankments and 23 spurs of 100 m each, 27.4 km of embankments were returned to operational condition . The deflection spurs were not repaired as planned because the stream geometry was considered more suitable for longitudinal embankments . A bridge across the Kugart River at Suzak was also constructed.

1.c) and d) Did not meet component objectives: Only 8 of 16 planned irrigation schemes were completed. In the PAD, 39,000 ha of irrigated areas were planned. The 8 completed schemes resulted in 34,300 ha, or 88 percent of planned irrigated area. All four irrigation works outside of river beds and some proposed works inside river beds were dropped at the request of the GOK in 2001 because additional river protection works were judged to be of greater priority.

1.e) Met component objectives. River gauging stations and flood warning systems were built on four rivers .

2. The original component was to finance staff and equipment for the PIU, technical assistance, training activities and two study tours. The component actually financed staff, equipment and one study tour . Technical assistance and training did not have to be financed by IDA to the extent envisioned in the PAD, according to the ICR .

4. Significant Outcomes/Impacts:

- New design and construction methods, such as use of Reno mattresses, were successfully introduced . This resulted in manufacturers learning this technology . Also more staff than planned were trained in these methods and in their maintenance.
- An unplanned replacement of the Kok Art bridge in Suzak and 3 nearby embankments resulted in protection for this city and 3 villages upstream of it.
- In 2002-2003 large floods occurred in some of the rivers where protection works were completed with no damage reported.
- The works were carried out to high enigneering standards, at least -cost for those standards, with the cost per km of protected embankment considerably lower than estimated at appraisal .

5. Significant Shortcomings (including non-compliance with safeguard policies):

- Many contracts suffered delays in implementation due to poor counterpart financing . IDA eventually agreed to raise its disbursement percentage of the project to pick up the slack .
- Construction implementation time was underestimated . In particular, the need for construction work stoppages and setbacks during the flood season were not incorporated .
- There has been no monitoring of yield levels or detailed recording of water deliveries on any of the 8 irrigation schemes rehabilitated by FEP and hence no objective assessment of benefits can be made .

6. Ratings:	ICR	OED Review	Reason for Disagreement /Comments
Outcome:	Satisfactory	Satisfactory	
Institutional Dev .:	Substantial	Substantial	
Sustainability :	Highly Likely	Highly Likely	
Bank Performance :	Highly Satisfactory	Highly Satisfactory	
Borrower Perf .:	Satisfactory	Satisfactory	
Quality of ICR :		Satisfactory	

NOTE: ICR rating values flagged with ' * ' don't comply with OP/BP 13.55, but are listed for completeness.

7. Lessons of Broad Applicability:

- Simple technologies and design approaches which are new for the borrowing country can be successfully introduced, and adopted by relatively inexperienced contractors if the necessary support of international experts, along with effective local support, is provided . Import of new products can demonstrate the effectiveness of new technologies and provide the key to their acceptance on a wider scale, as well as a guide and comparative gauge for local manufacture.
- A generally cooperative approach to resolving contractors ' difficulties, especially lenience with extension of contracts without imposing penalties, eased project implementation .
- In this case, flexibility of project design, accompanied by good resource planning, sound engineering design, and effective management for implementation, produced very good results . What was planned as an emergency recovery project has
  enhanced not only the nation's long-term infrastructural assets, but also its stock of engineering and contracting expertise and has provided significant short -term employment.
- Good communication with all levels made for effective problem solving by Bank staff .
- A very high proportion of project funds in infrastructure projects are channelled to contractors . The impact of these projects on the contracting industry could be substantial, especially in transition economies .
- Timely project implementation depends on good project planning . In this case, the time-frames of both sub-project contracts and the project itself had to be extended because no proper account was taken of the need to halt works during the flood season .
- On-the-job training and regular supervision by experienced engineers is critical for satisfactory results and to provide a relatively homogeneous quality level .

8. Assessment Recommended? ○ Yes ● No

9. Comments on Quality of ICR:

This ICR is inffromative and generally complete. One shortcoming, however, is that, whereas the project shifted from rehabilitation to become a "full-fledged infrastructure investment project" with more extensive changes to the physical landscape and estuary systems, nothing much is said in the ICR about whether the environmental impact work done at appraisal was adequate for the new components. So it is unclear whether safeguard policies were complied with in the end. Also, more effort into calculating ERR and cost and benefits could have been made, as there was some baseline information available and calculations such as increased production from irrigation upgrades and flood protection could have been done. More explanation of Bank supervision activities could have been provided. It was clear from the solutions appiled to difficulties delineated in the ICR that some extra effort was made, but it is not that clear exactly what the Bank did to help – other than providing consistent personnel and good

communication. More infromation would have been helpful and could have been iincluded in the Lessons Learned for other task managers.