

# IEG ICR Review

Independent Evaluation Group

1. Project Data:		Date Posted : 08/10/2007	
PROJ ID : P001409		Appraisal	Actual
<b>Project Name :</b> Highland Water-Phase 1B Project	<b>Project Costs (US\$M):</b>	884.0	628.9
<b>Country:</b> Lesotho	<b>Loan/Credit (US\$M):</b>	45.0	21.7
<b>Sector Board :</b> WS	<b>Cofinancing (US\$M):</b>	227.0	121.6
<b>Sector(s):</b> Water supply (100%)			
<b>Theme(s):</b> Export development and competitiveness (29% - P) Water resource management (29% - P) Infrastructure services for private sector development (14% - S) Rural services and infrastructure (14% - S) Access to urban services and housing (14% - S)			
<b>L/C Number:</b> L4339			
	<b>Board Approval Date :</b>		06/04/1998
<b>Partners involved :</b> Development Bank of Southern Africa European Investment Bank , commercial lenders	<b>Closing Date :</b>	12/31/2004	12/31/2006
<b>Evaluator :</b>	<b>Panel Reviewer :</b>	<b>Group Manager :</b>	<b>Group :</b>
Keith Robert A. Oblitas	Peter Nigel Freeman	Alain A. Barbu	IEGSG

## 2. Project Objectives and Components:

### a. Objectives:

The project's Development Objective (PAD) was:

To put in place the physical and managerial capacity for Lesotho to transform its principal natural resource of abundance - water - into export revenues that can be applied to poverty reduction and economic stability while (i) protecting the environment and mitigating any adverse social and environmental impacts and (ii) maximizing the local development spin -offs of the project in Lesotho; and  
To assist South Africa in developing its lowest cost alternatives for supply of water to the Gauteng Region ."

In effect, the Development Objective comprised four sub-objectives:

1. Putting in place the physical and managerial capacity for Lesotho to transform its principal natural resource of abundance - water - into export revenues that can be applied to poverty reduction and economic stability .

- II. Protecting the environment and mitigating any adverse social and environmental impacts (from the project investments)
- III. Maximizing the local development spin-offs of the project in Lesotho.
- IV. Assisting South Africa in developing its lowest-cost alternatives for supply of water to the Gauteng Region .

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

No

**c. Components (or Key Conditions in the case of DPLs, as appropriate):**

There were four project components, which were not revised :

**A. Main Project Works** (Estimated costs at appraisal \$531.0 million; Actual costs \$377.8 million): Comprising: construction of Mohale dam (a 145m high, concrete-face, rock-fill dam at Mohale); Mohale tunnel (32 km long, 4 to 4.6m in diameter, concrete lined, and with delivery capacity of 9.6 cubic meters/second) for the main water impoundment; Matsoku diversion (a 15 m high concrete weir and a 5.6 km, 4.5m diameter tunnel with delivery capacity of 2.2 cubic meters /second for delivery of water to Katse; upgrading 59 km of access roads and construction of 21 kms of new roads; construction of other infrastructure including a bypass channel, a weir, construction camps, power and telecommunication facilities; and, implementing an environmental mitigation program for construction comprising water quality management, pollution abatement, dust and noise control, public safety, and site landscaping.

**B. Engineering Supervision** (Estimated costs at appraisal \$ 105.0 million; Actual costs \$78.5 million): comprising engineering services for detailed design and preparation of tender documents, and construction supervision services for the project's main works.

**C. Environmental and Social Action Plan** (Estimated costs at appraisal \$ 140.0 million; Actual costs \$88.3 million): Implementing an environmental and social action plan including : resettlement of affected communities, compensation for project affected losses, income restoration and rural development, protecting the environment and cultural heritage, a public health program, and program M&E.

**D. Administration and Capacity Building** (Estimated costs at appraisal \$108.0 million; Actual costs \$84.3 million). Comprising: institutional support for the implementing agency - Lesotho Highlands Development Authority (LHDA) - through short and long-term technical assistance services for : financial management and administration, Engineering, Environment/Social Panels of Experts, and a Disputes Review Board; operations and maintenance; staff training and studies; and the operating and administrative costs for LHDA .

**d. Comments on Project Cost, Financing, Borrower Contribution, and Dates:**

There were no changes in project components, design, scope, scale or implementation arrangements . Project closing was extended twice, each time by one year, resulting in a project period of 8.5 years and final closure at end-December 2006. The extensions were primarily to address residual environmental, social and institutional issues. There were major cost savings across all components of the project, and the total project cost fell from \$ 884 million estimated at appraisal to an actual cost of \$628.9 million, some 71 percent of the appraisal estimate . The cost savings were in particular due to lower construction contract costs than anticipated (in unit costs as construction was fully completed), and reduced use of consultants .

Only \$21.7 million or 48 percent of the original Bank loan of \$45 million was disbursed, primarily because less technical assistance was required compared with expectations . There were 3 part-cancellations of the loan: \$9 million in December 2001, \$6 million in October 2003 and \$7 million in January 2005.

In financial terms the Bank's contribution was relatively small : planned to be 5 percent of the project's estimated total costs at appraisal, and falling to 3.4 percent at project completion. The Bank loan was for financing institutional support to LHDA, technical assistance for the two Panels of Experts (for engineering, and for social and environmental issues) and for the Disputes Review Board, and training . The following financing partners were involved: LHDA (\$26.0 million planned and \$8.4 million actual); the Development Bank of Southern Africa (\$47.0 million planned and \$32.3 million actual); the European Investment Bank (\$109.0 million planned, \$45.3 million actual); export credit backed commercial loans (\$60,0 million planned; \$35.3 million actual); and, in combination, capital provided by the Republic of South Africa, money markets and water users (\$826.0 million planned and \$503.0 million actual; there was no breakdown provided in the ICR for this group ).

The PAD and legal documents are inconsistent in their respective statements of Development Objectives and project components. The Loan Agreement does not refer to the broader objectives of the project related to the environment and social objectives (yet such objectives are clearly important parts of the PAD's project description, institutional arrangements, costs and financing arrangements ). The LA only says that the "objective of the project is to establish the physical and managerial capacity for Lesotho to earn export revenues, by transforming its principal natural resource - water - into an export commodity". Also, the LA divides the project into 7 components, compared with the PAD's 4 components.

The LA's version of the DO is fully covered within the PAD version of the DO, but the LA's version is incomplete in that it does not even cover its own subsequent description of the project components The PAD's DO and

component breakdown are a better reflection of the intent and detailed features of the project as discussed in the PAD's text, and, accordingly, the PAD version has been used in this ICR Review .

### 3. Relevance of Objectives & Design:

**Relevance of Objectives :** The Development Objectives (DOs) of the LHWP had *Substantial* relevance to both Lesotho and South Africa, making use of their respective comparative advantages to the mutual benefit of both countries. Lesotho has abundant water (only about 6 percent of its water resources are consumed domestically), yet poverty is high and sources of income limited and heavily dependent on remittances from abroad (40 percent of the country's male population was employed in South Africa). Water was to be delivered to South Africa's water scarce Gauteng region, the hub of the South African economy, accounting for 60 percent of national GDP. A win-win situation was possible: Gauteng would get its much needed water, and the royalties from water sales, as well as all of the hydroelectric power generated by the project, would accrue to Lesotho. One of the four main objectives under Lesotho's 1996 CAS was to Maximize the Poverty Reducing Impact of LHWP. Lesotho's latest CAS (FY06) continues this emphasis. Likewise, Regional Issues, in particular inter-country development of water resources was one of the four priorities in the Country Assistance Note for South Africa (1997). The first phase of the LHWP - Phase 1A - had been successfully completed and, based on the water demand projections of the time for South Africa, it made strategic and economic sense to continue the program .

**Relevance of Design :** The relevance of the project's design was *Substantial*, but to varying degrees depending on Sub-objective:

**Sub-objective (i): To put in place the physical and managerial capacity for Lesotho to transform its principal natural resource of abundance - water - into export earnings that can be applied to poverty reduction and economic stability** - The design for DO 1 was *Substantially* relevant. Engineering was excellent, there were no significant design changes during construction, and the detailed design enabled attaining the physical capacity for the intended water transfers. The intention to develop the managerial capacity for operations and maintenance was an appropriate concomitant to the infrastructure investment .

The reference in the DO that the export revenues - "can be applied to poverty reduction and economic stability" - reflects the CAS strategy. Royalties from water sales were to go primarily for general economic development, and also to a separate project promoting community driven development activities targeting the poor - the Community Development Support Project (CDSP, a LIL of \$4.7 million IDA, approved in December 1999 and closed in September 2003). Regrettably, CDSP was ineffective, and the poverty alleviation activities were, thus, limited . This was unfortunate - sound usage of the LHWP's royalties should be a legitimate concern in the Bank's overall program for Lesotho. Also, the weak performance of CDSP, even though a separate project, means a lower socio-economic value of LHWP's benefit stream.

**Sub-objective (ii) - Protecting the environment and mitigating any adverse social and environmental impacts** . The ICR indicates that design was *Substantially* responsive to the Bank's environmental and social guidelines. An Environmental Action Plan was prepared based on a Category A Environmental Assessment, and a large financial allocation (\$140 million or 16 percent of the appraisal estimate of project costs) was made for environmental and social activities across a broad range of activities (Section 4). If successfully carried out, these activities would mitigate most adverse environmental and social impacts .

**Sub-objective (iii) - Maximizing the local development spin-offs of the project in Lesotho** . This was to be through job creation during construction and was *Substantially* relevant. The project used local contractors for more straightforward construction, and unskilled labor was to be local as far as possible ..

**Sub-objective (iv) - To assist South Africa in developing its lowest cost alternatives for supply of water to the Gauteng region :** The project's design was *Substantially* relevant from a supply-side perspective. The design of phase 1B was the lowest-cost option, and about 2/3rds of the cost of the next lowest-cost alternative.

### 4. Achievement of Objectives (Efficacy):

**Sub-objective I . Putting in place the physical and managerial capacity for Lesotho to transform its principal natural resource of abundance - water - into export earnings that can be applied to poverty reduction and economic stability** . Efficacy is rated *Substantial*. Construction of works was of high quality, and delivery capacity (m<sup>3</sup>/ of water/second) was as targeted. Lesotho's royalties from water sales to South Africa reached M 835 by 2003, exceeding the target of M650. The project contributed 4.8 percent to Lesotho's GDP, compared with a target of 3.9 percent. Revenues from electricity sales from the Muela hydropower plant were, however, below expectations - M63 million compared with a target of M410 million. This was primarily because government fixed tariffs at levels that were too low. The implementing agency - LHDA - was effective in the construction phase, although the degree to which institutional restructuring at the end of the project successfully built LHDA 's capacity in O&M is not clear from the ICR.

**Sub-objective II . Protecting the environment and mitigating any adverse social and environmental impacts** . Efficacy is rated *Modest*. While there were significant achievements under the Environmental and Social Action Plan, the ICR reports that some environmental and social actions were not completed . Amongst the better achievements,

social infrastructure for project affected persons (access roads, water supply, schools, etc.) appears to have been completed at or exceeding target levels. For instance, 7 schools were established as targeted, and piped water supply systems were provided to 126 villages, compared with the target of 75 villages. Incomplete activities include the finalization of management arrangements for compensation of families affected (resettlement and rehabilitation) by the project; establishing sustainable sources of livelihoods for affected families; and securing habitat for the Maluti minnow (the task team has advised that, as a broader approach, a Biodiversity Trust has been established and includes actions for the minnow's preservation.)

An important caveat is that information on social and environmental outcomes is limited and that significant doubts are introduced by the perspectives on environmental and social impact of one cofinancer and two NGOs. These viewpoints are fully reported in the ICR, and are markedly different from the Bank's discussion (Section 11). (NB. The task team has advised that since the ICR an impact survey has been undertaken and provides positive information on the incomes of resettled families),

**Sub-objective III. Maximizing the local development spin-offs of the project in Lesotho.** Achievements were **Substantial**. Some 9000 local jobs were created compared with 3000 targeted at Appraisal. About 24 percent of the labor force were from the highlands, a little lower than the targeted 30 percent.

**Sub-objective IV. Assisting South Africa in developing its lowest cost alternatives for supply of water to the Gauteng region:** Efficacy was **High**. The ICR advises that appropriate and high quality water infrastructure was completed at only 70 percent of the costs estimated at Appraisal, this infrastructure delivered the water quantities (M3/second) targeted at Appraisal, and the investment costs were 2/3rds the cost of the next least-cost alternative; all in all, an exceptional achievement.

#### 5. Efficiency (not applicable to DPLs):

Efficiency was **Modest**. The economic rate of return was 11.5 percent - about 4 percent less than the ERR calculated at Appraisal, primarily due to a reduced estimate of the economic value of water. This was because South Africa had implemented a number of demand-management activities during project implementation, which reduced current demand for water. Demand was also influenced by a lower rate of population growth in South Africa because of urbanization, leading to smaller families; and by mortalities from AIDs. Nevertheless, the value of the project is likely to be greater from a long-term perspective. South Africa's increased use of demand management may only be a medium-term palliative to Gauteng's structural water scarcity, and in the longer term, the LHWP is likely to be a key underpinning for Gauteng's and Lesotho's future development.

(NB. Related to efficiency, it is noteworthy that the project had a nearly 40 percent cost saving compared with the appraisal estimate, and that the cost was some 20 percent lower than the cost of the next lowest alternative water supply scheme. The extent to which the lower costs are due to efficiency induced savings, or might in part be due to overestimating project costs in the first place, is not discussed in the ICR.)

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

	Rate Available?	Point Value	Coverage/Scope*
Appraisal	Yes	15.9%	100%
ICR estimate	Yes	11.5%	100%

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

#### 6. Outcome:

**Moderately Satisfactory:** The project was relevant, and its strategic importance for development in both countries is important, and may prove to be more so over time. Physical investment was of excellent quality and the project met both its water supply (South Africa) and royalty targets (Lesotho). Achievements against these aspects of the project (Sub-objectives I and IV) were outstanding. However: (i) for sub-objective II, the environmental and social action plan needs completion (Sections 4, 7 and 11); (ii) the economic rate of return is modest; and (iii) M&E was weak.

#### a. Outcome Rating: Moderately Satisfactory

#### 7. Rationale for Risk to Development Outcome Rating:

The ICR rates Risk to Development Outcome as "Negligible to Low"; but its text comments that there are "moderate" risks associated with some social and environmental development programs. IEG concurs with this higher assessment of risks. Moreover, activities such as resettlement and rehabilitation, if not satisfactorily completed, could negatively influence popular and political support for further stages in the investment program. The markedly different and strongly held viewpoints of the Bank, a cofinancer and two NGOs about the project's

resettlement and rehabilitation program (Section 11), suggest a potential for controversy, and even for reputational risk.

Governance issues also present risks - the relationship between the LHDA executive, the Board and the LHWC, remain unresolved; and there is no regulatory framework between them to ensure compliance, accountability and transparency of operations.

**a. Risk to Development Outcome Rating** : Moderate

#### **8. Assessment of Bank Performance:**

**Satisfactory** overall:

**Quality at Entry:** **Satisfactory**. The strategic need for a water development program benefitting both Lesotho and South Africa was identified and carefully prepared, requiring both far-sightedness and perseverance. Two countries and a large group of development and private sector investors were successfully brought together. Engineering design was strong. A shortcoming was the inconsistencies between the PAD, the Loan Agreement and the Treaty regarding the project objectives and components (Section 2).

**Quality of Supervision:** **Satisfactory**. Supervision missions were strongly staffed. Missions were regular, with a good range of specializations, including in social and environmental areas. The team had supportive management back-up. An admirable job was carried out both in technical areas and in facilitating cooperation between the multiple donors and the two countries involved. The Bank provided a leadership role and strong support to Government in Lesotho's investigations and prosecutions of the pre-project (Section 11) corruption cases. While the environmental and social action plan still needs to be completed, the effort put into these issues was considerable (this was recognized in 2006 when the team won the Africa Region Green Award).

**a. Ensuring Quality -at-Entry:**Satisfactory

**b. Quality of Supervision** :Satisfactory

**c. Overall Bank Performance** :Satisfactory

#### **9. Assessment of Borrower Performance:**

**Moderately Satisfactory** overall:

**Government Performance:** **Moderately Satisfactory**. The Government worked closely with the Bank and provided mostly good support in implementation decisions and financing for the physical investment program. However, commitment to the environmental and social programs was inadequate, and implementation decisions were sometimes slow.

**Implementing Agency Performance:** **Moderately Satisfactory**: The Lesotho Highlands Development Authority was highly committed, and successfully managed the project's construction program. But environmental and social aspects received less attention, with resultant delays and implementation problems.

**a. Government Performance** :Moderately Satisfactory

**b. Implementing Agency Performance** :Moderately Satisfactory

**c. Overall Borrower Performance** :Moderately Satisfactory

#### **10. M&E Design, Implementation, & Utilization:**

Both the Bank and LHDA comment in the ICR that M&E was a weak aspect of the project. IEG concurs, although it merits noting that efforts are underway to improve M&E. However, for the project period, the quality of M&E was **Modest**:

**M&E Design:** M&E activities were included as a project sub-component, but with limited details on how it would be carried out. Nevertheless, a detailed Results Framework was established, usually with specific and measurable monitorable indicators. Weaker areas were in the M&E design for environmental and social impacts, for which indicators were often not quantified.

(QAG, in its 2002 review of the project, commented that the Results Framework was "far too all-embracing". IEG agrees with this comment - the ICR matrix is 8 pages long, and is followed by a 7 page matrix on project components. But the issue is less that the indicators were not useful for monitoring purposes, than that a smaller core group of key indicators were not identified as the important yardsticks for measuring outcome.)

**M&E Implementation:** A great deal of data was collected, especially as concerns project achievements, but the design gaps regarding measuring outcome achievements largely remained. An implementation problem was that

M&E work started late and was then repeatedly interrupted by a series of consecutive consultancy contracts .

**M&E Usage :** Data measuring physical achievements were a useful management tool for tracking the project's progress, but environmental, social and poverty outcomes were less easy to track and are likely to have contributed to the project's weaker performance in these areas . Two Stakeholder Workshops held at the end of the project were effectively used to identify issues to address improvement needs for future M&E . The candor of the Bank team's and LHDA's self-assessment, and their evident intention, to improve LHWP's M&E in its future operations, is a very positive development.

**a. M&E Quality Rating :** Modest

**11. Other Issues (Safeguards, Fiduciary, Unintended Positive and Negative Impacts):**

**Inspection Panel Reviews :** The Inspection Panel was called in twice; (i) to investigate a complaint by a township in Gauteng that expenditures on the project would reduce government's available financial resources for improving the town's water supply system (the Panel ruled that this was not related to the project); and (ii) from 9 mining companies claiming rights to land that would be inundated (the Panel ruled the land claim to be null and void). Second, corruption involving several international firms and senior government personnel was found to have taken place in Phase 1A. The thorough investigations and resultant court cases, the debarment over a number of years from future bidding on Bank projects of two firms, and the prosecution of government staff, all of which were done during the present (Phase 1B) project period, is reported in the ICR to have been well handled .

**Environmental and Social Issues :** The Environmental and Social Action Plan was very broad and many aspects were well implemented . But there were delays or problems associated with some areas, and the ICR rightly considers that the Action Plan should be continued and completed . The principal needs cited in the ICR are : (a) satisfactory completion of the resettlement and compensation program; (b) finalizing arrangements for management of the compensation program for resettled families; and (c) completing the protection measures for the Maluti minnow (in 2003/04 a broader scope biodiversity trust was established which includes activities to preserve the minnow, but on a more modest scale). Additionally, implementing an effective program for prevention of HIV/AIDS amongst the construction workforce has assumed greater importance as transmission of the disease has been much higher than expected. In response, the project stepped up the HIV/AIDS program, going beyond the scale anticipated at appraisal.

An unexpected development under the project was the recourse made by some project affected communities to the Lesotho National Ombudsman . The Ombudsman was contacted when the community felt a grievance (generally resettlement and compensation related) or needed intervention by a third party . The ICR sees this as a positive development as it provided an institutionalized mechanism for independent review .

**Diverging Viewpoints and Implications :** The Bank, a cofinancer (the Development Bank of Southern Africa) and two NGOs (the International Rivers Network and Environmental Defense) exhibit different viewpoints on the project's environmental and social impacts : the ICR comments (page 13) that the project achievements implementing the Resettlement Action Plan have been acknowledged as *"World Class"*. The Development Bank of Southern Africa, in its comments on the ICR (ICR, Annex 8), states that *"the outcome (of compensation and livelihood re-establishment) regrettably, is not world class. .... Somebody will have to ensure that a similar experience such as Kariba does not repeat itself, where people are even more destitute than before"* In similar vein, the NGOs commented (also in Annex 8 of the ICR) that *"the (project's) social and environmental aspects - the elements most critical to poverty reduction - were not implemented in a satisfactory fashion."*

Such negative views are, at least partly, in contradiction to data reported in the ICR's Results Framework . For instance, for Resettlement and Compensation, the ICR reports that household incomes of project affected persons increased to 8748 Maloti (about \$1240) per annum in 2005, compared with 2500 Maloti per annum baseline, an evident improvement. Nevertheless, the existence of such differences raises three concerns . First, some doubt is introduced concerning the quality of the project's environmental and social data . Second, unless data on these issues is independent and of undisputed quality, room for assertions such as the above exist, whether they are correct or otherwise. Finally, it would appear critically important - both intrinsically and to minimize chances of reputational risk - that the project's environmental and social actions are fully completed . In particular, the resettlement and rehabilitation activities of the program merit assiduous follow-up (including field missions), by both the Bank and the Government.

<b>12. Ratings:</b>	<b>ICR</b>	<b>IEG Review</b>	<b>Reason for Disagreement / Comments</b>
<b>Outcome:</b>	Satisfactory	Moderately Satisfactory	A mostly strong performance is tempered by the following less satisfactory aspects of the project : (i) the environmental and social action program needs completion (Section 4);

			(ii) the economic viability was modest; and (iii) M&E was weak.
<b>Risk to Development Outcome:</b>	Negligible to Low	Moderate	The environmental and social action agenda needs completion (Sections 4, 7 and 11).
<b>Bank Performance:</b>	Satisfactory	Satisfactory	
<b>Borrower Performance:</b>	Moderately Satisfactory	Moderately Satisfactory	
<b>Quality of ICR:</b>		Satisfactory	

**NOTES:**

- 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:**

**1. A construction agency is not an ideal institution for implementing environmental and social actions** . LHDA performed well as a construction agency, but was poorly equipped in orientation and staff skills for managing resettlement and environment actions . Although LHDA had a dedicated wing for environmental and social activities, this wing received less management attention and consultant assistance than LHDA's other departments. An independent agency, specialized in environmental and social activities might have been better .

**2. Multi-phase investment, with "software" aspects planned and implemented one step (phase) ahead of physical investment, could better enable social and environmental actions to be synchronous with construction** . Under the project, environmental and resettlement activities lagged behind construction . Such activities, including community driven development activities, typically take time, due to the community dialogue, motivation and capacity building required . Ideally, the software activities in this project (LHWP Phase 1B), might have been substantially implemented in LHWP Phase 1A.

**3. Major infrastructure programs may require Bank support in environmental and social areas going beyond project closure** . The project experience, which is not atypical for such projects, is that some environmental and resettlement/rehabilitation actions need a further period of support - for LHWP, occasional technical missions over the next several years would be helpful. This would facilitate completion of the Environmental and Social Action Plan, and would also reduce any potential for reputational risk (Section 11).

**4. Demand-management should be an integrated part of water investment programs** . Demand-management options were considered when designing LHWP . Even so, the analysis did not accurately predict the impact that demand-side actions could have . South Africa implemented tariff increases and other measures to reduce demand, and these were effective, hence reducing the project's ERR . The success of the demand-management actions also raised questions about whether Phase 1B of LHWP could have been deferred .

**14. Assessment Recommended?**  Yes  No

**Why?** To derive lessons useful for the program's future implementation, in particular in the social and environmental areas; and, more generally, to review the project's overall experience, for possible relevance to major-scale water development projects elsewhere . In particular, given the popular sensitivities surrounding construction of large dams, a follow-on evaluation of the environmental and social outcomes would be a responsive follow-up.

**15. Comments on Quality of ICR:**

ICR Quality is *Satisfactory* . The ICR's particular strengths include that it is clearly written, is candid in reviewing project problems, has a thorough economic analysis, and is thoughtful and forward looking in discussing lessons from the project experience. The results framework, while long, contains a wealth of useful data . The inclusion of an ICR prepared by the borrower, and of comments on the project from a major cofinancer and two International NGOs (longstanding critics of major water infrastructure projects ) adds considerably to the report's candor and the breadth and discussion of the issues .

A shortcoming of the ICR (though the origin of this is substantially due to the limited data in these areas ), is the lack of a convincing assessment of LHWP's outcomes as regards resettlement and rehabilitation, and, to a lesser

extent, the project's environmental impact. There is substantial, though somewhat dispersed, discussion, but clear pictures of the project's impact do not emerge. The intended institutional structure for future management of the LHW program, and arrangements for operations and maintenance would also have merited further discussion.

**a. Quality of ICR Rating :** Satisfactory