



1. Project Data:		Date Posted : 06/21/2001	
PROJ ID: P001522		Appraisal	Actual
Project Name: Second Irrigation	Project Costs (US\$M)	25.70	22.02
Country: Madagascar	Loan/Credit (US\$M)	21.2	20.4
Sector(s): Board: RDV - Irrigation and drainage (71%), Central government administration (29%)	Cofinancing (US\$M)		
L/C Number: C2644			
	Board Approval (FY)		94
Partners involved :	Closing Date	06/30/2000	09/30/2000
Prepared by :	Reviewed by :	Group Manager :	Group:
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2. Project Objectives and Components			
a. Objectives			
<ol style="list-style-type: none"> Increase agricultural output through improved water management and intensified agricultural extension . Reduce poverty through increased incomes and food security . Develop techniques and local capacity for environmental management of irrigation rehabilitation; Establish operational procedures for transfer of Operation and Maintenance (O&M) of public schemes to Water User Groups (WUG). Increase management efficiency of agricultural extension services, rural works programming and local planning at provincial, local and district level . Contain and control a locust outbreak (in 1998, \$4.2 million of funds were set aside.) <p>The purpose of the rehabilitation and management transfer was to engage farmers in future O&M, and relieve central government of continuing high levels of O&M and rehabilitation expenditures . High erosion, sedimentation, and recurrent cyclones and flooding, combined with inadequate maintenance, have led to a continuing cycle of unnecessarily frequent rehabilitations .</p>			
b. Components			
Total Project Costs of US\$ 22 million comprised: (i) Cyclone rehabilitation and corrective rehabilitation work on 16,000 ha (20%); (ii) Environmental Assessment and Protection (2%); (iii) Rehabilitation of 4,000 ha of Additional Schemes (27%); (iv) Support for Ministry of Agriculture Services (28%); (v) Monitoring and Evaluation (10%); (vi) O&M by WUGs (3%); (vii) Insecticides (9%).			
c. Comments on Project Cost, Financing and Dates			
Rehabilitation costs for 16,000 ha previously damaged by cyclones and targeted for full transfer of O&M responsibilities, were only \$117/ha compared to \$207/ha in the SAR. Component (iii)'s achievement of 25,000 ha, compared to 4,000 ha in the SAR, at a much lower cost (\$154 compared to \$1778/ha in the SAR), could be very misleading. The full rehabilitation works will require going through 3 overlapping "cycles", of uncertain length, of the "Participatory and Progressive Approach" (PPA) :- (i) participatory design of future phases of rehabilitation to be done by farmers and contractors; (ii) planning for agricultural development for different stages of rehabilitation; and (iii) determination of works to be carried out. The works are not complete and except in few cases the WUGs are not able to carry out sustainable O&M.			
3. Achievement of Relevant Objectives:			
<ol style="list-style-type: none"> Main season production increased by 76,000 tons compared to an SAR target of 66,000. Rice yields increased from 2.2 to 3.0 t/ha compared to the SAR target of 3.3 t/ha . The rehabilitation improved water management but if improved O&M is not introduced and sustained, the benefits will be temporary . An analysis of individual schemes, assuming sustained benefits, showed only 2 of 10 schemes had an ERR above 20% (compared to an SAR target of 27% overall.) The ICR assumes that incremental benefits are not sustainable, but conditional on the speed of decline in benefits not being too rapid, the ERR is probably marginally above 10%.. Income increased \$203/ha and food security was marginally increased by diversification (by an additional 1000 			

<p>ha non-rice coverage.)</p> <ol style="list-style-type: none"> 3. 15 Regional Environmental Offices and 64 Local Environmental Units were created and a guide for environmental analysis prepared. These units had their own budgets but depended on central government funding. The ICR judged the increase in local capacity to have had an insignificant effect on environmental impact of the project - "project activities related to environmental protection remained isolated attempts (sometimes measuring a few square meters." In the sphere of planning and programming the launching of bids and selection of contractors remained highly centralized . 4. Procedures for management transfer were established but only 14 of the 148 schemes conducting O&M achieved full transfer. Only 5 of 19 schemes analyzed were rated as having a high level of functioning - "Notwithstanding extensive training, WUGs appear able to assume responsibility for O&M in a sustainable way to a limited extent." 5. The project did not have a holistic approach to agricultural development and lacked integration of extension, watershed management and irrigation. Extension and environmental activities were covered by two other projects but "no strong mechanism for collaboration or coordination of activities between the three projects was identified." 6. The locust control objectives were met with the recent termination of the locust emergency activities .
<p>4. Significant Outcomes/Impacts:</p> <ol style="list-style-type: none"> 1. Albeit on a limited scale, the project demonstrated the feasibility of a rehabilitation strategy based on participatory infrastructure delivery with the aim of mobilizing WUGs to take responsibility for O&M . 2. WUGs were established for all the schemes that were rehabilitated . 3. The training and experience gained from decentralized programming and planning activities has had a significant impact on the capacity of the Regional Directorates of the Ministry of Agriculture (including Rural Works and Extension, and Regional Environment Offices) to contribute to the continuing process of decentralization. 4. Some villages had impressive cost-recovery, demonstrating that it is possible to do better than the low level achieved in the majority of schemes.
<p>5. Significant Shortcomings (including non-compliance with safeguard policies):</p> <ol style="list-style-type: none"> 1. The project made little progress in the first two years as it spent an excessive time elaborating a participatory intervention strategy rather than implementing one that had already been elaborated in extensive detail in the SAR. 2. There was no strategy for withdrawal from the villages, which perpetuated and deepened dependence of WUGs on the project. 3. There was no strategy for implementation of the 3-year PPA at the end of the project, when there was insufficient time to complete the full cycle of activities . 4. There were extensive delays in issuing titles benefiting WUGs as the formal process of transfer was not part of the project. Similar administrative delays in land titling weakened the impact of environmental activities . 5. Levels of upfront contribution were insufficient, with a few notable exceptions, and cost -recovery was low, perpetuating dependence on government support - a total financial contribution of \$6/ha was collected while proper O&M is estimated to cost \$23-38/ha (the ICR says there is still disagreement about this estimate .) 6. The lack of legislation on appropriate action against defaulters weakened WUG performance and proper functioning. 7. Although the project exceeded its M&E budget by over 1000% (\$2.31 million versus \$.21 million at appraisal) the baseline indicators specified in the SAR (Annex 6) were not subsequently presented at project completion . 8. Project approach and funding mechanism should be consistent . PPA requires flexible and demand-driven funding operations to avoid project activities being driven by disbursement goals . 9. Although supervision reports clearly identified the need for a study to determine the feasibility of establishing a permanent emergency rehabilitation fund (foreseen in the SAR), nothing was done (physical deterioration due to regular cyclone and flooding damage is quite significant and regular . In the 1999 Rainy Season 3 cyclones caused \$2.3 million of severe damage on 22 schemes covering 9000 ha.) 10. Environmental sustainability remains questionable and few results and positive impacts were achieved, while only 30% of the budget available for this objective was disbursed . Adequate local capacity was not established . 11. An Amendment to the Development Credit Agreement mandated limitations on insecticide spraying - it is not clear if the covenants have been fulfilled .

6. Ratings:	ICR	OED Review	Reason for Disagreement /Comments
Outcome:	Satisfactory	Moderately Satisfactory	The ERR is marginal due to the unlikely sustainability. On the other hand conditions were difficult and important lessons were learned, which should lead to more efficient transfer.

Institutional Dev .:	Modest	Modest	
Sustainability :	Unlikely	Unlikely	
Bank Performance :	Satisfactory	Unsatisfactory	Quality at entry was unsatisfactory and some of the decisions made by the Bank, including the 1996 expansion of scope, fly in the face of a large body of experience .
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:

1. Modest investments in rehabilitation (of the order of \$250-500/ha) can create momentum for management transfer, on the condition that they are accompanied by proper mobilization and training of farmers . But the approach is likely to work better in small to medium-sized schemes and less so in larger schemes, as the scope of work has to be visible .
2. If a participatory approach is to be taken seriously both the Government and Bank must be willing to be more flexible about project duration and not get locked into achieving targets and away from achieving them in a sustainable way .
3. Delaying transfer because WUGs are judged not capable of ensuring O&M sustainability, often has the opposite effect to that intended . More financial support does not always mean higher sustainability and amongst the weakest WUGs under this project were those that saw project assistance perpetuated .
4. Irrigation projects should be part of a multi-sectoral approach integrated into watershed management programs and including land tenure, credit, transport, access to marketing, input supply and extension .
5. Procurement of small works should be decentralized as far as possible .
6. Participatory processes are in a permanent state of flux, being modified on the basis of new experiences - we should not rely on the executing agencies to take the lead in applying the latest developments .

8. Assessment Recommended? Yes No

Why? This project is rich in experience and would fit well into a series of audits covering the relationship between decentralization in government and irrigation management reform . Some audits have already broached this subject, but in general irrigation reform and fiscal decentralization are usually examined in isolation . In many client countries the two sets of reform are proceeding in parallel, but project designs often fail to recognize the inter-dependencies. Existing bank funding mechanisms and loan administration may have a distorting effect on project incentives since the loan is made at national level (sovereign guarantee of the loan and investment grants from the national budget.) On the other hand the project "owner" is really a lower level of government or an authority rather than central government.

9. Comments on Quality of ICR:

Although the text is repetitive , the ICR does a good job, sticking to the required format, and summarizing complex issues in a balanced and concise way .