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PROJECT PERFORMANCE ASSESSMENT REPORT

INDIA

ECODEVELOPMENT PROJECT
(CREDIT 2916-IN)

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Sector, Thematic and Global Evaluation Division
Independent Evaluation Group

Currency Equivalents (annual averages)

Currency Unit = Indian Rupees (INR)

2003 (Feb)	US$1.00	Rs. 45.5
2006 (Feb)	US$1.00	Rs. 44.0

Abbreviations and Acronyms

ADB	Asian Development Bank
CAS	Country Assistance Strategy (CAS)
CBD	Convention on Biological Diversity
CDF	community development fund
CDF	Community Development Funds
EDC	Ecodevelopment Committee
FREEP	Forestry Research and Education Project
GO	government orders
GOI	Government of India
ICR	Implementation Completion Report
IEDP	India Ecodevelopment Project
IEG	Independent Evaluation Group
IEGWB	Independent Evaluation Group (World Bank)
JFM	Joint Forest Management
MOEF	Ministry of Environment and Forests
MPFP	Madhya Pradesh Forestry Project
MTR	Mid-Term Review
PA	protected areas
PF	Periyar Foundation
PPAR	Project Performance Assessment Report
PTO	Project Tiger Office
PTR	Periyar Tiger Reserve
RTR	Ranthambore Tiger Reserve
SHG	Self-Help Groups

Fiscal Year

Government: April 1 – March 31

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IEGWB Mission: Enhancing development effectiveness through excellence and independence in evaluation.

About this Report

The Independent Evaluation Group assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the Bank's self-evaluation process and to verify that the Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, IEGWB annually assesses about 25 percent of the Bank's lending operations. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or Bank management have requested assessments; and those that are likely to generate important lessons. The projects, topics, and analytical approaches selected for assessment support larger evaluation studies.

A Project Performance Assessment Report (PPAR) is based on a review of the Implementation Completion Report (a self-evaluation by the responsible Bank department) and fieldwork conducted by IEGWB. To prepare PPARs, IEGWB staff examine project files and other documents, interview operational staff, and in most cases visit the borrowing country for onsite discussions with project staff and beneficiaries. The PPAR thereby seeks to validate and augment the information provided in the ICR, as well as examine issues of special interest to broader IEGWB studies.

Each PPAR is subject to a peer review process and IEGWB management approval. Once cleared internally, the PPAR is reviewed by the responsible Bank department and amended as necessary. The completed PPAR is then sent to the borrower for review; the borrowers' comments are attached to the document that is sent to the Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

About the IEGWB Rating System

The time-tested evaluation methods used by IEGWB are suited to the broad range of the World Bank's work. The methods offer both rigor and a necessary level of flexibility to adapt to lending instrument, project design, or sectoral approach. IEGWB evaluators all apply the same basic method to arrive at their project ratings. Following is the definition and rating scale used for each evaluation criterion (more information is available on the IEGWB website: http://worldbank.org/oed/eta-mainpage.html).

Relevance of Objectives: The extent to which the project's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, Operational Policies). *Possible ratings:* High, Substantial, Modest, Negligible.

Efficacy: The extent to which the project's objectives were achieved, or expected to be achieved, taking into account their relative importance. *Possible ratings:* High, Substantial, Modest, Negligible.

Efficiency: The extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. *Possible ratings:* High, Substantial, Modest, Negligible. This rating is not generally applied to adjustment operations.

Sustainability: The resilience to risk of net benefits flows over time. *Possible ratings:* Highly Likely, Likely, Unlikely, Highly Unlikely, Not Evaluable.

Institutional Development Impact: The extent to which a project improves the ability of a country or region to make more efficient, equitable and sustainable use of its human, financial, and natural resources through: (a) better definition, stability, transparency, enforceability, and predictability of institutional arrangements and/or (b) better alignment of the mission and capacity of an organization with its mandate, which derives from these institutional arrangements. Institutional Development Impact includes both intended and unintended effects of a project. *Possible ratings:* High, Substantial, Modest, Negligible.

Outcome: The extent to which the project's major relevant objectives were achieved, or are expected to be achieved, efficiently. *Possible ratings:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

Bank Performance: The extent to which services provided by the Bank ensured quality at entry and supported implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of the project). *Possible ratings:* Highly Satisfactory, Satisfactory, Unsatisfactory, Highly Unsatisfactory.

Borrower Performance: The extent to which the borrower assumed ownership and responsibility to ensure quality of preparation and implementation, and complied with covenants and agreements, towards the achievement of development objectives and sustainability. Possible ratings: Highly Satisfactory, Satisfactory, Unsatisfactory, Highly Unsatisfactory.

Contents

This report was prepared by Colin Rees, Consultant, who assessed the project in April 2006. Soon-Won Pak provided administrative support.

Principal Ratings

	*ICR**	*ES**	*PPAR*
Outcome	Satisfactory	Moderately satisfactory	Moderately satisfactory
Sustainability	Likely	Non-evaluable	Likely
Institutional Development Impact	Substantial	Substantial	Substantial
Bank Performance	Satisfactory	Satisfactory	Satisfactory
Borrower Performance	Satisfactory	Satisfactory	Satisfactory

* The Implementation Completion Report (ICR) is a self-evaluation by the responsible operational division of the Bank. The Evaluation Summary (ES) is an intermediate IEGWB product that seeks to independently verify the findings of the ICR.

Key Staff Responsible

Project	*Task Manager/Leader*	*Division Chief/ Sector Director*	*Country Director*
Appraisal	Jessica Mott	Shawki Barghouti	Heinz Vergin
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Preface

This is the Project Performance Assessment Report (PPAR**)** for the India Ecodevelopment Project (IEDP). The project was financed through IDA Credit No. 2916 in the amount of US$ 28.0 million equivalent (19.5 million SDR) and a GEF Trust Fund Grant (TF-28479) of US $ 20.0 million (13.9 million SDR) with contributions from project beneficiaries (US$ 4.50 million*)* and state and central governments (US$ 14.42 million). The credit was approved on September 5, 1996, became effective **on** December 9, 1996 and was closed on June 30, 2004, two years behind the scheduled closing date of June 30 2002. Restructuring took place in June 2002 with the total cancellation of US$ 5.6 million from the credit and US$ 2.2 million from the Grant. The remaining credit was 96.4 percent disbursed.

The findings of this assessment are based on an Independent Evaluation Group (IEG) mission to India in April/May of 2006 and review of project documents. The mission met in Delhi with staff from the Government (GOI), NGOs and the Asian Development Bank and other donor agency staff. Site visits were paid to Ranthanbore and Periyar Tiger Reserves (two of the seven sites included in the IEDP) to meet with Reserve staff, local NGOs and villagers, including tribal people. This report draws heavily upon the technical reports and inputs of team members in Washington DC and in Delhi and government staff, the donor community and NGOs in India. Key documentary sources consulted include: (a) World Bank and other project files; (b) project-related reporting and evaluation; and, (c) and conservation studies and evaluation reports generated in India.

This PPAR is also intended as an input into an on-going IEG evaluation of the development effectiveness of the World Bank's assistance to the environment and to biodiversity conservation at national and global levels.

The IEG team gratefully acknowledges all those who made time for interviews and provided documents and information.

Following standard IEG procedures, copies of the draft PPAR were sent to the Borrowers (GOI, ICICI and IDBI) for comments, but none were received.

Summary

The overall aim of the India Ecodevelopment Project, approved in 1996, was to conserve biological diversity in seven globally significant protected areas (PAs) by implementing an ecodevelopment strategy (prepared by the GOI). The strategy embraced a community-based approach encouraging durable partnerships between Forest Department staff and local communities for access to and responsible use of forest resources. The main project objectives were to: (i) improve the capacity of PA management to conserve biodiversity, increase collaboration of local people in conservation efforts, and increase opportunities for local participation in PA management activities and decisions; (ii) reduce negative impacts of local people on biodiversity and of PAs on local people; (iii) develop more extensive support for ecodevelopment; (iv) ensure effective management of the project; and, (v) prepare future biodiversity projects. Its components corresponded to these objectives and comprised: (a) improved PA management; (b) Village Ecodevelopment; (c) education and awareness and project impact monitoring and research; (d) overall project management; and (e) preparation of future biodiversity projects.

The *relevance of project objectives* is assessed as **high** as they were fully consistent with the Bank's Country Assistance Strategy and GOI priorities and supported the global aim of conserving biodiversity in seven critical areas in a mega-diversity country.

The project's *efficacy* is assessed as **modest**. The capacity of PA management was improved with increased participation of local communities in conservation efforts and management plans were produced for the seven PAs. However, some of these plans suffered in quality as baseline data and research did not always address needed planning requirements and corrective actions occurred late in the planning process. Use of Regional Planning Committees established to promote conservation in the wider landscape was also uneven. The objective of preparing future biodiversity conservation projects was dropped.

Efficiency is also assessed as **modest**. Participatory monitoring recorded a reduced dependence of communities on PA resources and control of poaching and intrusion pressures on PAs has resulted in habitat regeneration and increased wildlife populations. Visible gains were also made in terms of galvanizing local communities to form Ecodevelopment Committees for conservation in and around PAs, some 580 EDCs being formed involving 75,000 households. However, it appears that only one PA was able to abide substantively by the micro-planning process and its provisions, while the lack of competent professional experience impaired rigorous assessment of PA threats and the selection of funded activities by EDCs and other groups. Equally, the project time frame of five years pressured the micro-planning component and the effective building of partnerships. A major benefit of the project was improvements to people-park relationships, and the project generated significant awareness and support for conservation and ecodevelopment around the majority of the PAs.

Based upon the evidence of *efficacy* and *efficiency*, the *project's outcome* is rated **moderately satisfactory**. *Sustainability* is rated **likely**. The project achieved more efficient, equitable and sustainable use of its human, financial and natural/biological resources by the time it ended. An increased contribution by the GOI and sustained local contributions underpinned the accomplishment of project objectives. This is continuing at most of the seven sites and would be further encouraged in the proposed follow-on Biodiversity

Conservation and Rural Livelihoods Improvement Project. Conservation responsibilities are now shared with local communities and the long-term survival of PAs appears more assured. However, several challenges for the further development and sustainability of project activities remain, especially strengthening key institutional arrangements; improved management planning, and better targeted site-specific micro planning by EDCs.

Institutional development impact is rated **substantial.** In a climate of inexperience and risks regarding participation and trust, limited implementation capacity and questionable management support, the project introduced many innovations such as transparent accounting and involvement of local communities. The latter often meant painful negotiation with state and local agencies and communities. Many management innovations are now part of forest development operations at national and state levels and the Project Tiger Office now has a dedicated budget for ecodevelopment activities. Critical modifications were adopted during the Mid-term Review (MTR) and subsequent Bank Missions stepped the up the quality and frequency of supervision though this should have been done earlier.

Overall, *Bank performance* is rated **satisfactory**. More intensive supervision of institutional capacity in the early stages of project implementation should have been undertaken and earlier interventions would have helped foster ownership and management planning and sustain the momentum of the ecodevelopment approach. *Borrower performance* was unsatisfactory during the early phases of project implementation but is rated **satisfactory** overall. The extensive scope and complex demands of project design and dependency upon local institutions was a constraint early on, and only after concerted efforts during and after the MTR did all parties recognize the opportunity to chart a new approach to biodiversity conservation through improved park/people relationships and strengthened institutional arrangements to improve the livelihoods of local communities.

Key lessons include the needs to:

- *enhance EDC capacity to better link Protected Area management with village development and livelihood needs*;
- *move conservation practices into the wider landscape by integrating Protected Area activities with those affecting the adjacent rural/agriculture sector more generally, as, for example, by taking an ecosystem services approach;*
- *better target research and monitoring, including that on changes in vegetative cover and populations of key species and their interface with the wider landscape, to serve the management priorities of Protected Areas;*
- *improve monitoring and evaluation indicators – including the quality of baseline data -- and their application to help gauge the benefits of conservation interventions; and,*
- *use recent legislation, including the Freedom of Information Act, to assist local communities to realize the full benefits of conservation and sustainable development through more direct participation in decision-making.*

Vinod Thomas
Director-General
Evaluation

1. Background

1.1 Support for ecodevelopment by NGOs and the GOI emerged early in the 1990's when it was accepted that the "protection/exclusion system" of wildlife management had not worked. An ecodevelopment strategy was developed by the GOI in the early 90s with the aim of accommodating the welfare and behavior of local people and integrating these concerns into management of Protected areas (PAs). It also sought to build private sector stakeholder support for conservation among NGOs, nature tour operators and the general public. The strategy built upon the gains initiated in the 70s under Joint Forest Management Forest Management wherein decision-making authority and responsibility for control over forestlands and their products are shared between forest department and local used groups. Helped by the National Wildlife Action Plan (1983), the Environmental Action Plan (1993) and, as signatory to the Convention on Biological Diversity (1993), the GOI increasingly broadened efforts to enhance community participation (if initially top down). The Eighth Five-Year Plan (1992-1997) incorporated the ecodevelopment approach and it has since become central to promoting wildlife management throughout India.

1.2 The Bank-funded FREEP and IEDP Projects covered nine PA sites in nine states and the Madhya Pradesh Forestry Project (MPFP), included a substantial biodiversity component through which 24 priority PAs in the state received financial support. Together, these provided direction and mutually supportive lessons for implementation of this project and shaped future interventions at the state level. The lessons point to the need from the onset for sound PA leadership, substantive participation of all parties, and team capacity and building and sustaining social capital and cohesion in communities in and around the PAs.

1.3 For the purpose of this review, site visits were made to two of the seven PAs supported by the IEDP – Ranthambore Tiger Reserve in Rajasthan and Periyar Tiger Reserve in Kerala. The two sites were selected because of the extremes offered, Ranthambore TR being considered by all parties to have attained the least successful outcomes and Periyar the most successful. Extensive interviews were conduced with GOI staff and NGOs in Delhi and with Reserve staff and local villagers and tribal people and NGOs.

2. Project Design and Implementation

Objectives, Components and Implementation Arrangements

2.1 The project was financed by an IDA Credit (US$ 28 million) and a GEF Trust Fund Grant (US$ 20 million) to India. It was approved in September 1996 and became effective in December of the same year as planned. Over a six-year period, the project set the ambitious agenda of conserving biodiversity through implementing the ecodevelopment strategy of the GOI in and around seven protected areas – chosen because of their global significance to conserving biodiversity. The Project Tiger Office (PTO) in the Forest Department of the Ministry of Environment and Forests (MOEF) was responsible for overall management of the IEDP and, state governments (through their

PA authorities) undertook for field-level project execution using existing inter-agency staff and community organizational structures.

2.2 The objectives were:

1) Improved capacity for protected area (PA) management to conserve biodiversity and increase opportunities for local participation in PA management activities and decision-making;
2) Reduced negative impacts of local people on biodiversity, reduced negative impacts on local people, and increased collaboration of local people in conservation efforts;
3) More effective and extensive support for conservation and ecodevelopment
4) Effective management of the project; and,
5) Preparation of future biodiversity projects.

2.3 The project comprised the following components:

a) *Improved PA management* (estimated costs US$ 15.3m; 23% of total costs; actual expenditures US$ 15.5m; 25% of total costs) to strengthen park protection and management in seven PAs through: (i) improved PA planning processes and building capacity of PA staff;(ii) incorporating PA concerns into regional planning and regulation; (iii) protecting and managing ecosystems and habitats within the PA; and, (iv) upgrading PA amenities for field staff.

b) *Village ecodevelopment* (US$36.1m; 54% of total costs; actual expenditures US$ 32.8m; 54% of total costs) designed to reduce negative impacts of local people on biodiversity and increase collaboration of local people in conservation by: (i) conducting participatory micro planning and providing implementation support for micro plans in ecodevelopment villages (ii) implementing reciprocal commitments that foster alternative livelihoods and resource uses, to be financed by a village ecodevelopment program, with specific measurable actions by local people to improve conservation (iii) special programs for additional joint forest management, voluntary relocation, and supplemental investments for special needs.

c) *Education and awareness and impact monitoring and research* (US$5.2m; 8.7% of total costs; actual expenditures $2.8m; 4.5% of total costs) involved developing more effective and extensive support for PA ecodevelopment, including: (i) promoting public support for conservation through environmental education and awareness campaigns; and, (ii) impact monitoring and research to improve understanding of issues and solutions relevant to PA management and interactions between PAs and people.

d) *Overall project management* (US5.8m; 9% of total costs; actual expenditures US$ 9.3; 15% of total costs) supported the management organization and activities covering: direct PA management, implementation strategy and guidelines, multi-state learning and dissemination, implementation review; national-level policy studies; and national-level administration

e) *Preparation of future biodiversity projects* (US$ 2.6m; 3.9% of total costs; actual expenditure US$ 0.61; 1.0 % of total costs) covering: (i) Second Ecodevelopment project (ii) Biodiversity Information project and (iii) Ex-situ conservation project. *This component was dropped at MTR.*

2.4 Additionally, the project included Reimbursement of Project Preparation Facility (US$2m or 3% of total costs; actual expenditure US$ 0.005m; 0.1% of total costs).

2.5 At appraisal, the project cost was estimated at US$ 67 million, of which the IDA share was US$ 28 million, GEF's US$ 20 million, the national and state government's US$ 14.42 million, and local communities (US$ 4.5 million). It was approved in September 1996 and became effective in December of the same year. Revisions to the project took place in May 2000 and cost allocations were restructured in June 2002 after canceling US$ 7.8 million from the credit (US$ 5.6) and from the Grant (US$ 2.2 million). The project closed in June 2002, two years behind schedule, the two one-year extensions for some PAs being justified on the grounds that more time was needed to create new institutions and build capacity; restructuring involved reducing the scope of some targets and dropping the component on the preparation of future biodiversity projects. Actual project costs were US$ 61 million of which the IDA share was US$ 18.6 million, GEF US$ 16 million, national and state government US$ 21.4 million, and local communities US$ 4.97 million.

Project Design

2.6 Project preparation recognized the unique challenges posed by the adoption of the ecodevelopment approach, institutional complexity and demand and the need for clear commitment and support for implementation by state governments and NGOs, the uncertainties of devolving power between the central and state governments and the application of the voluntary relocation concept. All parties were aware of ambitious tasks before them, particularly in piloting a participatory approach for PA management and ecodevelopment aimed at fundamental changes in the relationships between forestry staff and communities living in and around PAs. Strengths of design are clear: effective balancing of conservation and community needs and aspirations through achieving significant support for ecodevelopment; substantive social assessment and participation of communities at most sites and the application of voluntary resettlement; and, the provision of a Community Development Fund (CDF) to sustain local level Ecodevelopment Committees (EDCs). PA management staff capacity was effectively enhanced and communities mobilized against poachers and encroachers and habitat restoration and increases in wildlife populations are evident. Weaknesses have emerged with respect to: estimates of the number of EDCs to be established; timely flow of funds and management costs; and institutional capacity. The latter would have benefited from more attention to: better defined capacity building measures and, in recognition of devolving authority between central and state governments, clearer definition of authority and procedures for budget flows and arrangements for contracting. The use of research grants suffered because of delays in the prior need for establishing PA management plans and consequent insufficient time for implementation. In addition, the scope of the

research should have been more focused on priorities and assessing project impacts. Lastly, linkage with the rural/agriculture sector and widening engagement with the landscape via Regional Planning Committees was a neglected feature of the IEDP. Local communities and government agencies around PAs provide unique opportunities to mainstream conservation and sustainable use activities in their respective development activities – a feature incorporated in the succeeding biodiversity conservation project.

2.7 More attention might have been given to the project's demanding planning processes and institutional and financial arrangements and the absence of skills in GOI and state staff and communities. Detailed organizational structures and responsibilities, staffing needs and contracting arrangements were agreed during preparation but foundered at some sites during the early phase of the project because of failure to build sufficient capacity and generate ownership at state and community levels.

Project Implementation

2.8 The project suffered from a number of design shortcomings contributing to unsatisfactory progress in the first four years of its implementation. The ambitious scale of the project, demanding processes and procedures, complexity of institutional arrangements and a five-year timeframe imposed too great a burden on state staff and at some sites raised unrealistic expectations with local communities. The limitations of technical expertise and experience were under appreciated, in part because weaknesses were generalized during preparation rather than being addressed specifically at each site; similarly, financial and budget arrangements were insufficiently detailed, particularly in the face of putative institutional experience. The role of the PTO and PA management in outreach and disseminating lessons learned proved disappointing, especially in the early stages of the project and may have compromised ownership and understanding of the project. Nonetheless, the promotion of resettlement in a PA context and the deployment of social assessment and participation planning, established a durable precedence in the accommodation of conservation and community needs and their reconciliation. Some sites benefited from a community contribution of 25%; more particularly, the creation of a Community Development Fund (CDF) at many sites provided for the maintenance of Ecodevelopment Committees (EDCs) beyond the life of the project.

2.9 Delayed processing by the GOI meant that funds went unused until October 1997 (some 10 months after effectiveness) and the Bank's Task Team leadership changed several times denying continuity and focus and action on pressing issues. The Nagarhole National Park site drew an inquiry by the Bank's Inspection Panel over a prevailing (pre-project) conflict between the Forest Department and the divergent perspectives of conservationists and pro-tribal NGOs over resource use in the Park. A Bank Board meeting on the issue in 10 December 1998, rejected the need for a full investigation and asked Bank Management to work with the GOI in addressing the concerns of the Inspection Panel (in consultation with local communities), particularly in reorganizing implementation to: ascertain the willingness for relocation; assess the economic status of relocating families; implement measures to improve the livelihood of relocated families; and prepare and implement micro plans within the Park. This the GOI and the Bank completed and though there was a consequent delay in implementation at Nagarhole, it

provided an opportunity for re-evaluation in introducing actions at other sites demonstrating voluntary relocation as a viable mechanism to resolving pressures on PAs.

2.10 A Mid-Term Review (MTR) in May/June 2000 revised targets of EDC microplan coverage and dropping the component on the preparation of future biodiversity projects largely because of the project's weak performance and the need to devote priorities to strengthening capacity at the central level, to disseminate lessons learned and develop more resilient sustainability strategies for ecodevelopment activities at specific sites. Priorities were focused upon: strengthening capacity at the central level; taking stock of lessons learned and their dissemination; and developing more resilient sustainability strategies for ecodevelopment activities at specific sites. Other revisions at MTR reflected the need to build capacity among forestry staff and villagers and reduce the number of Ecodevelopment Committee microplans and some originally targeted villages. A two-year extension of scheduled project closure (June 2002) allowed ecodevelopment project sites to absorb these systemic actions and develop institutional arrangements at the local level commensurate with the many challenges faced in mainstreaming biodiversity conservation. Progress thereafter was used to justify extensions of the credit/grant closing date to achieve agreed performance criteria.

2.11 The dropping of the component on the preparation of future biodiversity projects is felt by some in the conservation community to have compromised the momentum built up under ecodevelopment activities at the PAs. However, while the mission concurs that the inclusion of some additional sites might have been timely towards the end of the project, the allocation of saved finance at the MTR to other project components suffering problems was justified. A second phase follow-on designed to support the management of protected areas and other sensitive areas within selected landscapes is currently under preparation. This has allowed experience gained under IEDP to shape better-targeted interventions as well as enhance ownership at all levels.

3. Evaluation Findings

Relevance of objectives

3.1 The *relevance* of the projects' objectives is rated **high** overall. The IEDP was fully consistent with the Bank's Country Assistance Strategy and GOI priorities and attained enhanced relevance following revisions and restructuring. The global objective of conserving biodiversity in seven critical areas in a mega-diversity country was in compliance with guidance from the Convention on Biological Diversity (CBD) and GEF Counsel deliberations. The project supported funding of seven global priority sites using a pilot approach for eventual extension to other protected area sites in India. The relevance of project management is rated **negligible,** as this should be considered as a normal instrument of implementation. Though dropped during MTR, the objective of preparing of future biodiversity conservation projects is rated **high**.

Efficacy and Efficiency

3.2 *Efficacy* and *efficiency* are rated **modest**. Table 1 provides ratings of the project objectives and the following paragraphs evaluate project achievements and benefits by the five objectives.

Table 1: Project Objectives and Rating

Objective	*Relevance*	*Efficacy*	*Efficiency*	*Outcomes*
1. Improved PA management/opportunities for local participation	High	Substantial	Substantial	Satisfactory
2. Reduced negative impacts of local people on biodiversity, reduced negative impacts on local people, and increased collaboration of local people in conservation efforts.	High	Substantial	Modest	Moderately satisfactory
3. More effective and extensive support for conservation and ecodevelopment	High	Modest	Modest	Moderately satisfactory
4. Effective management of the project	Negligible	Negligible	Negligible	Negligible
5. Preparation of Future biodiversity projects	High	Negligible	Negligible	Negligible
Overall rating		Modest	Modest	Moderately satisfactory

Objective 1: Improved capacity for protected area (PA) management to conserve biodiversity and increase opportunities for local participation in PA management activities and decision-making.

3.3 There is compelling evidence of improved PA management capacity (both Forest staff and volunteers) at most sites and benefits accruing to local communities are tangible, e.g., improved water supplies and reduced tiger attacks. After a shaky start, mechanisms for stakeholder participation were established and PA staff found them particularly helpful in implementing improvements to community livelihoods and welfare. Insufficient staffing and experience at some PAs imposed some constraints though champions often negotiated them through sheer dedication and professionalism. Villagers proved their worth at a number of sites when they overcame leadership monopoly or elite capture (PRT may be cited as good practice); indeed, the active participation of local communities grew during implementation and, save for Nagarhole, may be considered a significant contribution to helping resolve tensions around the selected Reserves and in designing mutually supportive approaches to biodiversity conservation at the local level. A disappointment has been the working of the Regional Planning Committees established in each State; at some sites, such committees have not been active in promoting conservation in the wider landscape through the mediation of

both private and public sectors. On occasion, this constrained the expansion of gains within and beyond the buffer zone

3.4 Visits to two sites, RTR and PTR, and a literature review of evaluations of other sites confirmed that the project has attained good results at the field level. Careful selection of PA officers to maintain focus, consistency and continuity proved essential to PA management. Less satisfactory outcomes are apparent at the Project Tiger Office in the MOEF where it is clear that staff were frequently overwhelmed by administrative duties at the expense of sustaining national level studies supporting the implementation and monitoring of the project's disparate activities; this persists. The role of the MOEF continues to be limited in engaging the agriculture sector, the lack of a mandate covering review and clearance of agricultural and rural development projects and inexperience of PA management with the wider productive landscape being contributing factors.

3.5. Management plans were produced for all sites, though the timing of their completion and quality as baseline data and research did not always address needed planning requirements and corrective actions came late in the planning process. Although attention to buffer zones and beyond and consequent reconciliation of forest department and community needs was uneven, habitat protection was improved at most sites with the effective application of offset activities such as securing sustained water supplies for surrounding communities. Nonetheless, some of the communities around Ranthambore TR demonstrated the fragility of this gain where lack of financial support for continuation/expansion of ecodevelopment activities threatens a reversion to the use of Reserve resources.

Objective 2: Reduced negative impacts of local people on biodiversity, reduced negative impacts on local people, and increased collaboration of local people in conservation efforts.

3.6 Although baseline studies and research suffered delays because of the prior need for establishing PA management plans, participatory monitoring recorded a reduced dependence of communities upon PA resources (such as firewood and enhancement of their livelihoods). This was confirmed by IEG field observations where control of poaching and intrusion pressures on PAs has resulted in habitat regeneration along with increased wildlife populations of key species. At both Ranthambore and Periyar Tiger Reserves, local communities undertake patrols to control poaching and encroachment upon the Reserves and work closely with PA staff in sustaining conservation objectives.

3.7 The IEG Mission found improvements to habitat protection mostly following a shift in the attitudes of surrounding communities to the PAs (especially RTR), with mutual gains being realized through livelihood security, particularly via sustained water supplies. The mission corroborated reports indicating reduced tiger attacks and, in some instances, better managed access; field visits observed the substantive involvement of local people in conservation activities -- facilitated by development of community infrastructure (school buildings, roads, irrigation and water supply), compensation payments for resolving community-wildlife conflicts and construction of wildlife proof walls/fences. Such involvement took the form of voluntary patrols, alerting PA staff to poachers and building awareness of the benefits of conservation.

3.8 The SAR target of establishing and maintaining 806 Ecodevelopment Committees (EDCs) covering 71, 000 households was revised at MTR with a target of 569 to better reflect local realities; at project completion, some 580 were in place, covering 75,000 households. Sizeable community development funds have been generated by the EDCs at some sites, especially Periyar TR; in contrast, Ranthambore TR continues to experience tense relationships between some villages around the Reserve and the panchayats; this threatens accomplishments and the initiation of further activities.

3.9 Only PTR was able to abide substantively by the micro-planning process and its provisions (invoking equity, gender and socio-economic conservation considerations) stipulated in the SAR. Generally, the lack of competent professional experience impaired rigorous assessment of PA threats, selection of funded activities by EDCs (and other groups) and attention to preventing elite capture. This was sometimes exacerbated by the mandatory 25% financial contributions to assess ecodevelopment benefits -- only partially offset by involving Self-Help Groups (SHGs) not requiring such contributions. In future, it is recommended that specialist expertise be drawn from experienced government staff and consultancies so that capacity building of local staff may assure delivery of micro-planning outputs. Equally, the project time frame of five years pressured the micro-planning component and the effective building of partnerships; this undermined the rational selection of villages impacting on the PAs and led to charges of discrimination or diminished commitment to conservation. Though intended under the project, more durable mechanisms need to be developed to target villages with poorer populations and which have the greatest impact on PA viability.

3.10 Visible gains were made in galvanizing local communities to form EDCs for conservation in and around the PAs. Though initially, financial administration endured a rocky ride, many EDCs established Community Development Funds (CDFs) as revolving funds for use beyond the project. Regular audits ensuring transparency and accountability were conducted according to prescribed guidelines and procedures at most sites and these continue beyond project completion. A quite remarkable model in assuring social sustainability has been established at PTR where investment in social cohesion and capital has empowered the poorer sections of the community including tribals. Further, tractable measures have been adopted in sustaining ecological benefits – water resources management, habitat restoration, reduction of threats, especially poaching, clearance of invasive species, etc. Zoning for visitor/wildlife management has been incorporated in PA Management Plans and expansion of buffer zones and contiguity of PAs (through wildlife corridors) is under consideration at a few sites, notably PTR. The challenge remains to capitalize on these and other achievements through expanding the work of EDCs and including villages impacting PAs not included in ecodevelopment activities under the project. This is especially the case at RTR where the Mission heard complaints from local communities about their exclusion. The mission concurs with the view expressed in many reports that the national institutions component has been handicapped by the absence of an ecodevelopment wing at the PTO and a lack of empowerment of the Ecodevelopment Project Steering Board and an independent panel to report to the chair person of the Board. At some sites, the ability to engage the wider landscape went largely unsupported possibly because of the absence or delayed formation of effective Regional Committees; these could have been a valuable bridge to allocating funds outside of the PAs and gaining broader support for conservation. This deficiency

has been recognized by all parties and is to be addressed in the follow-on project that will involve other sites. In contrast, village institutions have proven their worth at a number of sites, especially when they overcame leadership monopoly or elite capture (PRT may be cited as good practice). Likewise, expert facilitation by a forest department officer at many sites provided critical mediation in balancing conservation and livelihood requirements and Self-Help Groups (SHGs) organized women in the use of micro-credit funds. However, only a few of the sites have been allocated support to continue SHG project activities beyond the life of the project. Accordingly, it is suggested that more specific arrangements should have been defined on capacity building, administration and other procedures (including delegation of authority), budget allocations and flows and contracting.

3.11 Another aspect requiring attention involves promoting effective working relations between the EDCs and the panchayats, especially the latter's capacity to provide funds for village ecodevelopment activities. The Mission's visit to RTR was particularly instructive in this regard. The Government of Rajasthan has yet to establish an ecodevelopment surcharge for the Reserve, imperiling gains in sustaining/widening the benefits of water security, grazing and other "offset strategies" and conservation based activities in buffer zones and militating against continuance or initiation of other needed work. In contrast, the PTR has mobilized considerable funding for sustaining ECD and other organizations including creation and running of the Periyar Foundation (PF) which benefits from PA visitor fees.

3.12 After a shaky start, when understanding and ownership of IEDP by the GOI and local governments were in doubt, the project recovered following state government orders (GOs) clarifying and approving actions for all seven sites following substantive intervention by the Bank. This appears to have provided administrative organization and empowered project staff to implement guidelines and strategies in support of ecodevelopment activities in and around PAs. Under the project, impressive gains were made with promoting conservation awareness at most sites – nature camps, education centers, and eco-clubs in EDC villages, local language guides, etc. -- though scaling up to engage the public and private sectors in the larger landscape remains a constant challenge. Here the deployment of Regional Planning Committees would have proven instrumental.

3.13 The stricture on buffer zone demarcation some two kilometers from the PA boundary was clearly inappropriate at some sites and led to tensions that persist. A disappointment has been the absence of NGOs at most sites, especially in later stages of the project, for their contribution would have assisted transparency and accountability in transactions at the local level as well as strengthening community capacity. Though the client sought their involvement and though supportive of the project, it appears that most NGOs had other priorities, especially in tackling urban poverty

Objective 3: More effective and extensive support for conservation and ecodevelopment

3.14 In general, the project generated significant awareness and support for conservation and the ecodevelopment model. All states housing the seven PAs passed government orders institutionalizing the model and strategies have been developed

around individual sites to sustain and expand ecodevelopment activities. Further achievements included enhanced pubic awareness, running educational and media campaigns, teacher training and establishment of education centers, nature camps and workshops for schoolchildren and Eco-clubs in EDC villages. Newsletters were published and information was disseminated on the economic value of the PAs to local communities.

3.15 Baseline data to monitor reduction of adverse impacts of local people on biodiversity and reducing adverse impacts of PAs on local people were completed at most sites and impact monitoring plans were integrated into PA management plans. However, progress on research and monitoring has been mixed. Some PAs undertook and are continuing valuable conservation and socioeconomic analysis and more a more effective tracking tool for large mammals (mainly the tiger) has been implemented. Other PAs experienced delays in defining a relevant adaptable research program or not effectively disseminating the findings at state and local levels. The PTO might have been more active in addressing this issue by helping speed up the completion of PA management plans and thereby allowing more time for needed research; as it is, project funding for research and monitoring was utilized only 50%. In contrast, - and a small grants program instituted at the Midterm Review facilitated exchanges between PAs and local academic institutions and a pilot project was implemented in PTR for sustainable access to funds for research and development.

Objective 4: Effective management of the project

3.16 The ICR (dated October 04) treats the achievement of this objective very briefly and rates it satisfactory. However, this review questions the inclusion of this objective as it differs little from normal support given to management organization and activities. Thus, although studies and their dissemination have been completed and lessons learned circulated to other parks, NGOs and other stakeholders (prompted at the MTR) this review rates the relevance of this objective as negligible

Objective 5: Preparation of future biodiversity projects

3.17 The component supporting the preparation of future biodiversity projects was dropped at MTR largely because of slow progress of the overall project. The MTR concluded that there was prior need to concentrate upon: strengthening capacity at the central level; taking stock of lessons learned and their dissemination; and developing more resilient sustainability strategies for ecodevelopment activities at specific sites. While this loss impaired multiplying the benefits to other PAs during project implementation, the Bank is preparing a follow-on project designed to support the management of protected areas and other sensitive areas within selected landscapes in a more favorable context and climate for ecodevelopment, especially at the local level

Financial Analysis/Management

3.18 No financial analysis was conducted for any of the project's activities because of the nature of interventions (biodiversity conservation, improving the enabling environment, etc.) and the difficulty of quantifying economic rates of return. However,

questions may be raised about project costs. Total project costs at the end of the project stood at US$ 63.30 million against an estimated US$ 67.00 at appraisal. Revised targets set at MTR included dropping the preparation of future biodiversity projects and reallocating substantial portions to the project management component (increased from US$ 5.83 million to US $ 9.4 million. Disbursement shows substantial increase in civil works and equipment costs mostly due to additional eco-restoration activities (which included employment generation) than predicted at appraisal. Government funds increased from US$ 14.40 million to US$ 21.40 million following needed for management requirements during the two-year extension of the project.

3.19 Supervision costs amounted to US$ 918,000.00, a substantial departure from normal coefficients and reflect the need to compensate for adequacies of design. The rapid turnover of Task Team Leaders (four in the first three years of implementation), may also explain this high cost along with revisions at MTR; staff led later supervision missions from the resident mission in Delhi.

3.20 The Bank ICR (October 04) states that there was limited financial management input during project preparation with the consequence that the Project Tiger Office (PTO) did not have sufficient control of finance and training of project staff in Bank policies and procedures was absent. Instances of mis-classification of expenditure, ineligible expenditure claims and significant errors in preparation claims resulted leading at times to temporary suspension SOE reimbursement.

4. Ratings

Outcome

4.1 Based upon the evidence of relevance, efficacy and efficiency, IEG finds the project's *outcome* to be **moderately satisfactory**. Though the project's *relevance* is rated **high** *efficacy* is rated **modest.** The capacity of PA management was improved with increased participation of local communities in conservation efforts and management plans being produced for the seven PAs; however, some suffered in quality as baseline data and research did not always address needed planning requirements and corrective actions came late in the planning process. There was also uneven use of Regional Planning Committees established for promoting conservation in the wider landscape. The objective of preparing future biodiversity conservation projects was dropped. *Efficiency* is also rated **modest.** Participatory monitoring recorded a reduced dependence of communities upon PA resources and control of poaching and intrusion pressures on PAs has resulted in habitat regeneration along with increased wildlife populations. Visible gains were made in galvanizing local communities to form EDCs for conservation in and around the PAs. Some 580 Ecodevelopment Committees (EDCs) were formed covering 75,000 households. However, it appears that only PTR was able to abide substantively by the micro-planning process and its provisions and the lack of competent professional experience impaired rigorous assessment of PA threats, selection of funded activities by EDCs (and other groups). Equally, the project time frame of five years pressured the micro-planning component and the effective building of partnerships. A major benefit of

the project was improvements to people-park relationships and the project generated significant awareness and support for conservation and ecodevelopment.

Sustainability

4.2 Sustainability, the resilience to risk of net benefits flows over time, is rated **likely though only moderately so** for there are some troubling areas that continue following project completion. The project aimed at enhancing the viability of PAs by enabling forest departments to integrate and share their responsibilities with local communities. Deft design of administration arrangements and maintaining the ecodevelopment approach was considered central to sustainability, especially by increasing public support for PAs, the continuation of benefits supported by the project and dedication of financing/revenues for longer-term activities. Many of these aims have been met: close interactions between PA staff and local communities at many sites led to a sharing of patrolling and site-specific micro-planning underpinned by the development of mutual trust; a new participatory and community-based strategy for conservation in and around PAs was established and successfully implemented; and, as a commitment and expression of ownership to local communities raised some US$4 million in community funds.

4.3 A number of actions need to be continued in the post-project period to assure sustainability: villages crucial to helping stabilize the boundaries and buffer zones around the PAs excluded in the project need to be accommodated; community commitment should receive the attention of PA staff and local government; and, some community organizations should prepare suitably scaled action plans. Field visits suggested this was underway at PTR but threatened to be in the breach at RTR. The succeeding Biodiversity Conservation and Rural Livelihoods Improvement Project should help bolster these efforts. .

Institutional Development Impact

4.4 Institutional development impact is rated **substantial.** In a climate of general inexperience and risks regarding participation and trust by local communities, limited implementation capacity and questionable management support, the project pursued innovations that often meant painful negotiation with state and local agencies and communities. Nevertheless, many innovations are now part of forest development operations at national and state levels and the PTO provides a dedicated budget for ecodevelopment activities. To keep matters on track substantial modifications were adopted at the MTR in favor of reallocation of finances to address emerging problems and subsequent Bank Missions stepped up the quality and frequency of supervision though, as observed elsewhere in this report, this should have been done earlier.

Monitoring and Evaluation: Design, Implementation and Utilization

4.5 This activity is under-reported in the Bank's ICRs and is rated **modest**. The development objective of improving PA management and improving opportunities for local participation was used as an indicator throughout implementation; progress on

mechanisms for regional planning and regulations are less well reported and the Mission learned that Regional Development Committees have yet to be established. In contrast, participatory monitoring was able to demonstrate reduced dependence of communities on PA resources and enhancement of their livelihoods; equally, the establishment and deployment of a Management Effectiveness Tracking Tool for PAs proved very effective.

Bank Performance

4.6 Considerable resources were dedicated at project preparation and appraisal, its being recognized by the Task Team that a multi-disciplinary team was needed to develop an innovative and demanding approach to the challenge of conservation of PAs in India and to provide detailed guidance for its successful implementation. Inevitably, the efficiency of the many institutions involved proved disappointing both with respect to the suitability of GOIs administrative procedures and capacity, support from the Center and the involvement of line ministries at the local level; the few NGOs present around PAs address conventional rural development needs and do not consider conservation a priority as was observed by the Mission during visits to Ranthambore Tiger Reserve (RTR) and Periyar Tiger Reserve (PTR). Despite having the experience of Joint Forest Management and FREEP at hand (where a clear lesson was the need for intensive supervision), the Bank's performance up to the mid-point implementation is considered **unsatisfactory** and **satisfactory** thereafter. A continuing change of TTLs (four during the first three years of implementation), meant timely actions were not taken, e.g. facilitating GOI procedures, strengthening the capacity of the PTO, helping dedicate staff, especially at the local level and overcoming constraints and bottlenecks such as the simplification of targets to be attained by the EDCs and empowering stakeholders.

4.7 The review of the project to the Inspection Panel appeared to concentrate efforts by all parties and led to some breakthroughs, but it was not until the MTR that substantive actions were taken to overcome major bottlenecks – dropping one of the components (preparation of future biodiversity projects), strengthening management and revising and refocusing of targets to reflect realities on the ground, especially EDC coverage – and that full participation of all stakeholders was fully realized. Thereafter, Bank supervision appears to have played a critical role in helping meet specific objectives, empowering government institutions and communities and disseminating good practice through strengthening PTO operations. As the Mission learned during visits to PTR and RTR, the stepped-up involvement of Bank staff specialists (led by the Resident Mission in Delhi) sustained commitment, helped resolve difficult issues and provided technical insight. Bringing in experience from around the world was especially appreciated, particularly in helping solve systemic problems. PA staff assisting the Mission also acknowledged the value of sharing knowledge and experience gained by Bank staff from visits to other sites in India and other countries in the sub-continent.

Borrower Performance

4.8 Borrower performance is rated **satisfactory** overall, but **unsatisfactory** during the early phases of implementation and **satisfactory** thereafter. During its early phase the project had to overcome constraints and impediments to effective management; these

ranged from problems with institutional efficiency (establishing funding mechanisms, EDCs, etc.) to delays with funding and technical studies and agreeing an effective communications strategy. Not surprisingly, management costs increased as steps were taken at MTR to rectify systemic problems at all levels.

4.9 The extensive scope and complex demands of design told early on and only following concerted efforts during and after MTR was high-level interest, ownership and responsibility by GOI and state officials obtained. At times during implementation, the follow up and timely intervention of the PTO in the MOEF was inadequate (and remains so today), in part because of under staffing. Although there is evidence of good working arrangements between the PTO and the states during project preparation, (all parties recognizing the opportunity for charting a new approach to biodiversity conservation through improved park/people relationships and instruments to improve the livelihoods of local communities), this faltered during the first stages of implementation in sustaining priorities and tackling institutional bottlenecks. Equally, given such innovation and demands, the national and state governments should have been more candid about their constraints, including overall institutional capacity, slow procedures for appointment and availability of technically qualified staff and the ability of state bureaucracy to process funds and willingness to empower civil society. These constraints severely hampered implementation during the first few years and it is a single failure of the GOI and the Bank not to have intervened before MTR and taken necessary actions.

4.10 At the field level, the Mission observed a marked contrast between management of RTR and PTR, the latter having aggressively exerted its authority and influence at all levels of state and local arms of government and local communities. In RTR, management continues to need direction and a more effective dialogue with the state to assure commitment to sustaining the Reserve; equally, there is a continuing lack of revenue from hotel tourism and in favor of ecodevelopment and conservation and entry fees are not flowing back to the PA. Such resources are critical where no revolving budget is available to those villages continuing to adversely impact the Reserve.

4.11 The Project Tiger Office (PTO) in the MOEF played an instrumental role in disseminating information, staffing workshops and deriving lessons learned for state and local application at all sites. However, the demands of the PTO compromised attention to management and administration issues across a range of activities including financial management and support to technical aspects. (The Mission observed that inadequate staffing continues the Director and his staff being clearly overburdened). There was also slippage at the state level at selecting and managing consultants providing essential technical assistance.

5. Lessons Learned

5.1 The experience of IEDP offers a number of seminal lessons for future Bank supported statewide interventions in conserving biodiversity through PAs and support to local communities in India and elsewhere. The lessons point for substantive participation of all parties (especially in the early stages), and team capacity and building and sustaining social capital and cohesion in communities in and around the PAs and sound PA leadership:

- *Enhancing the capabilities of Ecodevelopment Committees (EDCs) to better link the management of protected areas with village development and livelihood needs.* This component proved a powerful agent at some sites in sustaining commitment of local communities to PA management. Funds enabled the poorest to overcome the grip of moneylenders and their dependency on poaching and other destructive practices. To enhance the use of EDCs in future projects, it is recommended that: the dependency of households upon PA resources be recognized, especially in their often limited ability to provide a 25% contribution to micro-planning and community funding; GOI staff (PA field staff in particular) should be dedicated and trained in the concept of ECD operations to develop both appreciation of its power and facilitation in bringing all parties together and enabling interfacing with other government programs and reducing conflicts between PA and community needs. The tendency in some sites for EDCs to operate under a monopoly of leadership and under represent threats to PAs should be monitored closely; they should also guard against a 'treadmill' approach to micro-planning and assure greater integration with the efforts of the SHGs.

- *Moving conservation practices into the wider landscape by integrating protected area activities with the rural/agriculture sector.* This element of the IEDP was neglected, but is a core feature of the succeeding project. Local communities and government agencies around PAs provide unique opportunities to mainstream conservation and sustainable use activities in their respective development activities. For example, resource use strategies can help strengthen moving forest based local economies to sustainable use management. Such an "ecosystem services" approach could mobilize the experience of the JFT alternative livelihoods initiative (alternative energy, livestock rearing, etc.) so that income generation is not wholly dependent upon forest resources. The landscape approach may also be used to widen PA boundaries through the creation of biological corridors or Biosphere Reserves (with multiple use zoning); it is also a useful tool in integrating biodiversity conservation (including wild races of such plants as bananas) with policy and development decision-making at the macro level. Equally, PA management plans should better reflect regional planning concerns and be better championed by the Ecodevelopment Project Steering Committee at the national and District Collectors (as chairpersons of regional committees at the PA/regional level. The EDCs could also play a supportive role.

- *Better targeting of research and monitoring to serve the management priorities of protected areas.* This component remained a challenge and few dividends were secured at most sites in influencing the formulation of indicators measuring changes in vegetation cover and populations of key species, including interface with the wider landscape. These gaps should be addressed with urgency in the follow on project.

- *Improving monitoring and evaluation indicators and their application to ensure benefits of conservation interventions*. In some cases, baseline data were incomplete frustrating effective monitoring of changes and trends to demonstrate project benefits. In future projects, more attention should be given to measuring

ecological and socio-economic benefits and derived from conservation and rural livelihood activities using of biological resources and management capacity, particularly at the local level.

- *Using recent legislation in favor of sustainability to assist local communities realize the full benefits of sustainable development through more direct participation decision-making.* The recent Freedom of Information Act and other legislation provide civil society with opportunities to better engage in decision-making at both national and local levels in India. Such opportunities should be explored to help empower local communities and NGOs in their bid to articulate their contributions to sustainable development and conservation. A pro-active communications strategy at the time of project preparation would assist local communities mobilize the opportunities in developing the goals of ecodevelopment and other conservation projects.

Annex A. Basic Data Sheet

INDIA ECODEVELOPMENT PROJECT (CREDIT 2916-IN)>

Key Project Data *(amounts in US$ million)*

	Appraisal estimate	*Actual or current estimate*	*Actual as % of appraisal estimate*
Total project costs	67.0	61.0	91
Credit amount	28.0	18.6	66
GEF Grant	20.0	16.0	80
Cancellation	--	8.0	--

Cumulative Estimated and Actual Disbursements

	FY97	*FY98*	*FY99*	*FY00*	*FY01*	*Fy02*	*Fy03*	*FY04*	*FY05*
Appraisal estimate (US$M)	0.6	3.1	8.3	16.4	23.0	27.8	27.8	27.8	27.8
Actual (US$M)	1.5	3.2	4.2	6.4	10.2	12.8	15.6	18.6	18.6
Actual as % of appraisal	250	103	51	39	44	46	56	66	66
Date of final disbursement:	12/28/2004								

Project Dates

	Original	*Actual*
PCD	--	01/22/92
Appraisal	--	05/07/95
Board approval	--	09/05/96
Effectiveness	12/09/96	12/29/96
Closing date	06/30/02	06/30/04

Staff Inputs (staff weeks)

Stage of Project Cycle	***Actual/Latest Estimate***	
	No. Staff weeks	*US$ ('000)*
Identification/Preparation	119	360
Appraisal/Negotiation	110	298
Supervision	427	918
ICR	20	40
Total	676	2016

Figures above include Bank and GEF funds; Staff weeks for pre-1999 period might include consultant time; Figures derived from Cost Accounting system for pre-1999 data and from SAP for remaining years

Mission Data

Date (month/year)	No. of persons	Specializations represented	Performance rating	
			Implementation Progress	Development Objective
Identification/Preparation				
03/16/1993	2	FORESTRY(1); ENVIRONMENT (1)		
11/11/1994	11	TEAM LEADER (1); ENVIRONMENTAL SPEC. (2);ENVIRONMENT CONSULTANT (1); ANTHROPOLOGIST (1); CONSULTANT ANTHROPOLOGY (2); CONSULTANT INSTITUTIONAL (3); INFORMATION SPEC.(1)		
Appraisal/Negotiation				
02/15/1996	8	TEAM LEADER(1); ECONOMIST (1); ECOLOGISTS (2); BOTANIST (1); FORESTERS (2)		
Supervision				
02/28/1997	8	ECONOMIST (1); MISSION LEADER (1); FORESTER (1); SOCIAL SCIENTIST (3); ECOLOGIST (1); PARK MANAGEMENT SPEC. (1)	S	S
05/16/1997	5	TEAM LEADER (1); PROCUREMENT SPEC. (1); ENVIRONMENTAL SPEC. (1); FINANCIAL SPEC. (1); SOCIAL DEVELOPMENT (1)	S	S
12/03/1997	7	MISSION LEADER (1); SOCIAL SCIENTIST (1); ECOLOGIST (1); ECONOMIST (1); FINANCIAL SPECIALIST (1); FORESTER (2)	S	S
04/29/1998	2	MISS. LEADER/ECOLOGIST (1); FORESTER (1)	S	S
08/16/1998	4	MISS. LEADER/AG. ECON (1); COMISSION LEAD. SOCIOL (1); LEGAL (1); SOCIOLOGIST (1)	U	U
03/08/1999	5	PRINCIPAL ECONOMIST (1); NATURAL RESOURCES SPEC (1); SOCIOLOGIST (2); PA MANAGEMENT SPEC. (1)	S	S
08/06/1999	2	MISSION LEADER(1); SOCIAL DEVELOPMENT SPECIALIST (1)	S	S
02/10/2000	4	SOCIAL SCIENTIST (1); SOCIAL DEVELOPMENT (1); NATURAL RESOURCES SPEC (1); FINANCE AND DISBURSEMT (1)	U	U
05/19/2000	10	MISSION LEADER(1); FORESTRY SPECIALISTS(2); NRM SPECIALISTS(3); GEF COORDINATOR(1); ECONOMIST(1); PROCUREMENT SPECIALIST(1); FINANCIAL MANAGEMENT(1)	U	U
11/29/2000	8	TEAM LEADER, SOCIAL DE (1); CONSERVATION (2); GENDER (1); SOCIAL DEV. (1); PROCUREMENT (1); FINANCIAL MANAGEMENT (1);	S	S

Date (month/year)	No. of persons	Specializations represented	Performance rating Implementation Progress	Performance rating Development Objective
		FORESTRY, COST TABLES (1)		
05/03/2001	7	MISSION LEADER (1); SOCIAL DEV SPECIALIST (2); CONSULTANT (1); DISBURSEMANT SPEC. (1); PROCUREMENT SPECIALIST (1); TEAM LEADER (1)	S	S
10/13/2001	9	TEAM LEADER (1); SR SOCIAL DEV SPEC (2); SOCIAL DEV SPEC (1); SR BIODIVERSITY SPEC (1); FINANCIAL MAN. SPEC (1); PRINCIPAL ECONOMIST (1); SR PROCUREMENT ENGIN. (1); CONSULTANT (1)	S	S
05/20/2002	8	MISSION LEADER (1); PARK MANAGEMENT & BIOD (1); GENDER ISSUES (1); SOCIAL DEV ISSUES (4); FORESTRY CONSULTANT (1)	S	S
11/01/2002	11	MISSION LEADER (1); ENVIRONMENT SPECIALIST (1); SOCIAL DEV SPECIALIST (3); NATURAL RES SPECIALIST (1); FORESTRY SPECIALIST (1); FINANCIAL SPECIALIST (1); PROCUREMENT SPECIALIST (1); CONSULTANT FORESTRY (1); SOCIAL DEV (1)	S	S
05/06/2003	8	MISSION LEADER (1); SOCIAL DEV SPECIALIST (4); BIODIVERSITY SPEC. (1); CONSULTANT FORESTRY (1); SOCIAL DEV (1)	S	S
12/26/2003	10	MISSION LEADER (1); SOCIAL DEV SPECIALISTS (3); BIODIVERSITY SPECIALIST (1); FORESTRY SPECIALIST (1); FORESTRY CONSULTANT (1); FINANCIAL MANAGEMENT SPECIALIST (1); FINANCIAL MANAGEMENT CONSULTANT (1);PROGRAM SUPPORT (1)	S	S
06/30/2004	9	MISSION LEADER (1); SOCIAL DEVELOPMENT SPECIALISTS (2); BIODIVERSITY SPECIALISTS (1); FORESTRY SPECIALIST (1); FORESTRY CONSULTANT (1); FINANCIAL MANAGEMENT SPECIALIST (1); FINANCIAL MANAGEMENT CONSULTANT (1); PROGRAM SUPPORT (1).	S	S
ICR 06/30/2004	2	SOCIAL DEVELOPMENT SPECIALISTS (1); BIODIVERSITY SPECIALISTS (1);.	S	S

Other Project Data

Borrower/Executing Agency:

FOLLOW-ON OPERATIONS

Operation	*Credit no.*	*Amount (US$ million)*	*Board date*
None			

Annex B. India Reserve Profiles

Ranthambore Tiger Reserve

Ranthambore Tiger Reserve (RTR), notified as a National Park in 1980, is located on the left bank of the Chambal River in the state of Rajasthan. It supports rich biodiversity, linking a chain of wildlife sanctuaries, and is a watershed for many reservoirs and other impoundments– a lifeline for local people; it is also of scenic, geological, archeological and cultural significance. However, the Reserve is an "ecological island" subject to heavy pressures from the neighboring 332 villages of some 200,000 people and 100,000 cattle. Poaching has been markedly reduced during the last few years and domestic livestock grazing and fuel wood extraction is being progressively controlled along portions of the Reserve boundary largely through construction of a high wall. [1] The susceptibility of domestic cattle to disease poses a risk to Reserve mammals as it does to the productivity of herders.

Under IEDP, the Reserve's management saw improvement to infrastructure (headquarters facilities, silvipastural plantations, boundary demarcation and training of staff) after initial delay. Village ecodevelopment activities have included construction of water harvesting facilities, crop protection walls and roads, and provision of LPG. Micro planning through ecodevelopment committees (EDCs) and other arrangements have produced substantive gains at some locations leading to rising water tables for wells and moistening of agricultural land and reduced demand for fuel wood. Environmental awareness and education for the RTR committees and ecodevelopment sites was initiated but the momentum has not been sustained – partly because of competing priorities of PA staff and the marginal involvement of the few local NGOs. Monitoring of faunal populations is being conducted within the Reserve though somewhat piecemeal in the absence of a strategic plan. A census of key mammals is undertaken regularly but a comprehensive approach to accurately assessing trends remains elusive; meantime, poor infrastructure and field restrictions impair basic conservation research. Nothing of the income from hotels goes to the Reserve nor are entrance fees (Rs 2 per person from 100, 000 visitors per year) ploughed back for Reserve management despite provisions of some 10 years standing by the GoR.

The Mission found improvements to habitat protection mostly following a shift in the attitudes of surrounding communities to the Reserve, with mutual gains being realized through livelihood security, particularly via sustained water supplies. However, given lack of funding for continuation/expansion of ecodevelopment activities following completion of the project, there is a real danger that the communities will revert to using Reserve resources, especially in light of the high rate of unemployment (80% in some villages visited) and vulnerability of the area to drought. On the latter, it is recognized that the development of a water resources management plan for the Reserve and adjoining landscape could help mobilize needed financial and human resources to offset insufficiencies in ecodevelopment support.

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1. Criticized by some because of its constraints on the gene flow between tiger populations.

It is perhaps in the areas of institutional and financial sustainability that one finds RTR at its weakest. Micro planning sought to protect Reserve resources through investments in 62 of the 100 targeted EDCs; however, only 50% of these EDCs remain active and some of the excluded villages and others hold a grudge against Reserve Management and continue to exploit Reserve resources. The current relationship between the Reserve and the panchayats engenders tensions over such matters as use of drinking water and the dedication of EDC funds for protection of the Reserve in relation to wider landscape development needs.

The requirement of a 25% contribution by local communities for ecodevelopment investments remains another source of tension -- the villagers feeling it to be an unreasonable burden on the poorest, the GoR claiming the villages should be more proactive. [In contrast, the villagers at Periyar and possibly other sites under the project have been both proactive and creative in the use of such resources]. No explicit guidelines are available and the mission heard that some 33 villages have been unable to use these resources for some two years. There have also been problems with Village Development Funds (VDFs) using resources as revolving funds for Self-Help Groups (SHGs) and integrating EDC activities in line departments and the panchayats. Empowerment of women's groups remains partial and there is need to help mainstream them more effectively in Reserve management. With the exception of some women's organizations and the Tiger Foundation, there are no NGOs directly involved in Reserve conservation. Perhaps the most vexing issue concerns tourism inside and outside the Reserve. Management of tourism in the Reserve by the Tourism Department has been charged with corruption, nepotism and destructive impacts on the Reserve's fauna, particularly tigers. Over 300 hotels in Ranthambore are considered to derive substantial benefits from the Reserve (estimated at Rs 21 to 50 crore) yet do not provide any financial support for its operations or the livelihood of the neighboring villages (especially when draining their critical ground water supplies). Equally, few attempts are being made by the hotels to finance the development of crafts or employ local people or use local resources, e.g., food supplies. Finally, the illegal occupancy of hotels in the Reserve's buffer zone – often on grazing land – invoked intense anger of local people and resulted in the recent destruction of 26 hotels by local authorities following the application regulations (90 B Revenue Law) regarding the building of tourist infrastructure in and around PAs; this issue is expected to be revisited in many other PA locations in the near future).

Clearly under IEDP some benefits accrued to the Reserve and local communities – control of illegal grazing, decline in poaching, reduction in illegal use of trees for fuel wood and other resources and encroachment on the Reserve and assured sustainability of water resources. EDC have villages benefited from infrastructure improvements (roads, drinking water facilities, buildings, etc.) along with the construction of crop protection walls and enhanced recharge of ground water. However, several matters threaten these accomplishments: inadequate staffing levels and insufficiently defined responsibilities, training and the slow development of research and monitoring and environmental education awareness activities. Lastly, relocation of villages has proven problematic; to date 61 families have been resettled, but 36 await the allocation of "good land"; some families have been relocated on degraded forestland as no revenue land is available.

For the immediate future, a number of major problems require resolution following completion of the IEDP. Principal among these is: the ability to sustain the financial and institutional stability of the EDCs (and inclusion of remaining villages targeted under the project), the uncertain resource base of the Reserve (no entrance fees or tourism revenue being tapped for Reserve use), the tense relationships between some villages around the Reserve and the panchayats and the absence of planning arrangements for water and other resources in the Reserve and the wider landscape. The Bank and other parties have been encouraging the GoR to formulate and enact a law allowing a 2-5% ecotax on tourism and use part of the revenue for Reserve management and community development but there are no signs of action. Equally, the GoR has been slow in establishing vocational programs to enhance eco-friendly activities in such areas as fisheries, poultry and dairy farming in consultation with Reserve authorities and local communities.

Periyar Tiger Reserve

This Reserve, established in 1978 in the state Kerala, is located in the southern Western Gats and is notable for its scenic beauty, religion-cultural heritage and a rich biological diversity being one of India's 'hot spots' supporting rare, endangered and endemic species of tropical rainforest flora and fauna. It also generates considerable tourist revenue, is a major provider of water for irrigation, domestic needs and power generation in Tamil Nadu and is the source of the Periyar, Pamba and Azhutha Rivers. Five tribal groups live within and in the periphery of the Reserve. The Reserve is being considered for elevation of a National Park and the effectiveness of its management is widely recognized as a model for adoption in other parts of India and the world.

A number of threats continue to disturb the Reserve: some poaching in the interior areas; the pressures of 50 lakh pilgrims visiting the Sabarimala shrine within a two month period and the increasing visitors; and stress on PTR's biological resources from fringe villages and tea estates along the Tamil Nadu border. Other threats involve sandalwood smuggling and cattle grazing; unemployment in many of the surrounding villages remains at 60%.

Under the IEDP, the Government of Kerala (GOK) moved substantively early on to establish flexible institutional mechanisms through formation of ecodevelopment committees (EDCs), focused Self- Help Groups (SHGs) and provision of revolving funds and their auditing through the General Body of EDCs. A state level coordination committee and a PA implementation committee were empowered to coordinate efforts, take informed decisions and proactive actions; further, the selection and posting of qualified lead officers for extended periods and their support by contract staff provided durable underpinnings to the project.

Staff training, patrolling camps, upgraded trek paths has contributed to enhanced PA management and environmental education and awareness campaigns and research and monitoring have seen major improvements. Converting poachers and other trespassers into eco-tourism guides has reduced poaching and ecodevelopment has involved community/individual activities in tribal settlements and marginal, backward and fringe area

communities; in addition, conservation oriented activities have involved joint patrolling (in some cases by women volunteers), soil conservation and reduced crop loss, fuel wood use, cattle grazing and destruction of indigenous fish and other fauna. Some EDC activities have been linked to developmental initiatives supported by the panchayats and, to a limited extent, by NGOs. There has also been a deliberate effort to promote "homestead tourism" in the landscape around the Reserve.

The above efforts have addressed pressures and threats from the Reserve's fringes, especially in Kerala by extending management zoning for inclusion of habitats outside the Reserve's boundaries and proscribing management requirements for pilgrimages and tourism. Nonetheless, such an extension remains somewhat uncertain, given no control by PA management; equally, negative impacts from tea estate workers in Tamil Nadu pose threats as long as the proposed declaration of the Megahamalai area as a sanctuary remains outstanding.

A clear strength of the IEDP in PTR was effective transparency and equity in EDC functioning and allied capacity building. Conservation values were mainstreamed and a strategy guided ecodevelopment activities throughout implementation. The Periyar Foundation was formed to sustain ecodevelopment as a counter to the inefficiency of the PA budget and appears to be functioning well. Progress awaits recognition of the EDCs as institutions under the Kerala Forest Rules and linkage of EDC activities with local government. Of some concern is the danger that the Foundation and the PA authorities may not maintain transparency and sufficient dialogue with women's groups, tribals and other communities.

The inclusion of the poor and women from the outset and targeted income generating activities (including tourism and farming for tribals) supported by short term credits gave credence to the objectives of the IEDP and fostered productive and transparent relationships between the PA and concerned village communities. A major challenge has been to sustain these gains following the project's completion two years ago. Finance has been made available to the EDCs as CDFs with the Periyar Foundation (PF) providing long-term sustainability. It is this resource mobilization arrangement that has attracted national attention for possible applications in other PAs.[2]

The PCR and an independent study noted the successes and failures of the PTR component. Principal successes included improved PA planning and protection, a transformed tourism policy, habitat recovery, development of social capital among the very poor and enhanced awareness of PA values and the creation of the EDC program. The Mission supports this view and is impressed by the investment in social capital and the attainment of social cohesion and enhanced socio-economic conditions; nonetheless a number of areas require improvement if these gains are to be sustained over the longer term. These include: involvement of additional villages in EDC activities, especially on the Tamil Nadu boundary of the Reserve where there are sizeable estates; funding mechanisms to offset

2. Park fees are currently allocated as follows: Of Rs 300 charged to foreigners Rs 200 goes to the GOI and Rs 100 to the Periyar Foundation; of Rs 25 charged to residents Rs 15 goes to the GOI and Rs 10 to the Periyar Foundation.

fluctuating prices of agricultural products farmed by the EDCs (and the re-emergence of money lenders and consequent increased pressures on the Reserve and area wide natural resources); streamlining the accounting system for EDCs; and assured transparency in working arrangements between hired local staff/EDCs and PA and Periyar Foundation staff. The Foundation recognizes the need for such actions and has incorporated many in future work plans. It also accepts the core challenge of maintaining social gains for the protection of the Reserve while ensuring that revenues are balanced between conservation and area development needs and not subject to elite capture.

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