ICR Review
Operations Evaluation Department

1. Project Data:

<table>
<thead>
<tr>
<th>PROJ ID:</th>
<th>P009882</th>
<th>OEDID:</th>
<th>C2100</th>
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<table>
<thead>
<tr>
<th>Project Name:</th>
<th>Integrated Watershed Development (Hills) Project</th>
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<tbody>
<tr>
<td>Country:</td>
<td>India</td>
</tr>
<tr>
<td>Loan/Credit (US$M):</td>
<td>88.0</td>
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<tr>
<td>Sector, Major Sect.:</td>
<td>Natural Resources Management, Environment</td>
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<tr>
<td>Co-financing (US$M):</td>
<td>0</td>
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<tr>
<td>L/C Number:</td>
<td>C2100; L3175</td>
</tr>
<tr>
<td>Board Approval (FY):</td>
<td>90</td>
</tr>
<tr>
<td>Closing Date:</td>
<td>06/30/1997</td>
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<tr>
<td>Partners involved:</td>
<td>None</td>
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Prepared by: Christopher D. Gerrard
Reviewed by: Ridley Nelson
Group Manager: Gregory K. Ingram
Group: OEDST

2. Project Objectives and Components
   a. Objectives
      [Note: The ICR Reviews and the PAR, for both the Hills and the Plains projects, have been done concurrently.]
      The main objectives of the project were (1) to slow and reverse the degradation of the natural environment in the project areas, through the development and use of appropriate soil and moisture conservation technology, (2) to increase production and income from grain crops, horticulture, agriculture, forestry, and livestock products on a sustainable basis, and (3) to reduce flooding and other devastation resulting from the degradation both in the project areas and in the adjacent plains.
   b. Components
      The project area comprised the subtropical Shivalik and temperate Karewas ranges of the Himalayan foothills in Jharkhand, Jammu, Jalandhar, Jammu and Kashmir, and Punjab states. Each state government was responsible for implementing both primary (treatment) activities and secondary (support) activities. Secondary activities included project implementation, research and development, training, and monitoring and evaluation. The Government of India was to provide TA and training in relation to participatory planning and implementation, and to help establish geographic information systems (GIS) in each state.
   c. Comments on Project Cost, Financing and Dates
      At appraisal, the Bank's support consisted of a US$ 75 million credit and US$ 13 million loan, which together represented 70.1% of projected costs. The state governments were to contribute 22.7%, the Government of India 0.4%, and the beneficiaries 6.9% of total costs. At completion, the project utilized none of the loan (which was canceled in December 1991), and US$ 67.55 million (or 84.26%) of the credit. The original closing date for the credit was extended by 21 months to March 31, 1999.

3. Achievement of Relevant Objectives:
   Implementation started slowly due to initial difficulties in establishing the watershed planning and implementation offices (WPIOs) in each state, in recruiting and posting staff, and in training staff with the necessary skills to initiate watershed treatments. Planning was largely top-down during the first three years. After the MTR, which was a crucial, soul-searching period for the project, three major changes enhanced the demand -responsiveness and local ownership of the project's investments: (1) a greater emphasis on participatory planning and implementation, not only in theory but also in practice; (2) a more deliberative approach to water resources management and water-harvesting in each watershed; and (3) a greater flexibility in modifying standard technical solutions in order to generate more immediate benefits for the beneficiaries. Project teams also started to work better across disciplines in the various project watersheds.

4. Significant Outcomes /Impacts:
   (1) The project met, and even exceeded most targets in terms of the land area treated and the physical investments in engineering and vegetative technologies.
(2) Positive environmental impacts include more regulated discharge of water after the rains, reduced flooding, groundwater recharge, protection of stream banks, reduction in soil loss, and land reclamation.
(3) Income and consumption benefits include increased availability of water and increased output of agricultural, horticultural, livestock, and forest products.
(4) Positive institutional impacts include enhanced cooperation among line departments of state governments, the formation of 480 village development committees at the local level, and effective collaborative working relationships among the two groups.

5. **Significant Shortcomings (including non-compliance with safeguard policies):**
   (1) Although all four states purchased computer hardware and GIS software, the Government of India failed to provide TA and training to establish fully functional GIS units in each state.
   (2) While the four states effectively implemented the first two modules of the M&E system relating to progress reporting and assessing immediate results such as changes in land use patterns, they were less effective in assessing improvements in agricultural productivity, sustainability, and overall environmental impacts.

6. **Ratings:**

<table>
<thead>
<tr>
<th></th>
<th>ICR</th>
<th>OED Review</th>
<th>Reason for Disagreement / Comments</th>
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<tbody>
<tr>
<td><strong>Outcome:</strong></td>
<td>Satisfactory</td>
<td>Satisfactory</td>
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<tr>
<td><strong>Institutional Dev:</strong></td>
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<tr>
<td><strong>Sustainability:</strong></td>
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<td>Likely</td>
<td></td>
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<tr>
<td><strong>Bank Performance:</strong></td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td></td>
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<tr>
<td><strong>Borrower Perf:</strong></td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td></td>
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<tr>
<td><strong>Quality of ICR:</strong></td>
<td>Satisfactory</td>
<td>Satisfactory</td>
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7. **Lessons of Broad Applicability:**
(1) A watershed or sub-watershed is a very practical unit within which to plan and implement natural resource management projects in rainfed areas. Managing water -- the most basic natural resource in a watershed -- not only provides a practical framework for project implementation, but also a focus for the collective efforts of the village communities living in the watersheds.
(2) Ownership of the project by beneficiaries is essential for a successful outcome and for long-term sustainability. To achieve ownership, the project must pro-actively provide training in participatory methodologies for both project staff and beneficiaries.
(3) It is important for the services of different government departments (in this case, soil conservation, forestry, agriculture, horticulture, and animal husbandry) to be provided in an integrated way. For this to continue beyond the life of the project, this requires the development of new organizations (such as village development committees) and of permanent institutional arrangements among government departments, local governments, and the village development committees that create the incentives for this integration to continue.
(4) In order to receive the beneficiaries' support for long-term conservation objectives, it is also important for the beneficiaries to realize some short-term benefits from the project's interventions.
(5) During project implementation, it is very important to have feedback mechanisms, such as the midterm review, to effectively evaluate and reflect upon the progress of the project, and then to make the mid-course corrections that become necessary.

8. **Audit Recommended?** Yes
   **Why?** The ICR Reviews and the performance audit report, for both the Hills and the Plains projects have been done concurrently.

9. **Comments on Quality of ICR:**
The ICR was well-documented, including the aide-memoire, borrower's contribution, and detailed financial analysis. The main report was adequate but not stellar. There is no assessment in the main report of the effectiveness of M&E.