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FROM: Vice President and Secretary

June 22, 1995

INSPECTION PANEL

The Inspection Panel Investigation Report

Nepal: Arun III Proposed Hydroelectric Project  
and Restructuring of IDA Credit-2029-NEP

Attached is a memorandum from the Acting Executive Secretary of the Inspection Panel dated June 21, 1995, transmitting a memorandum to the Executive Directors from the Chairman of the Inspection Panel entitled "The Inspection Panel Investigation Report - Nepal: Arun III Proposed Hydroelectric Project and Restructuring of IDA Credit-2029-NEP".

Distribution:

Executive Directors and Alternates  
Office of the President  
Senior Vice President and General Counsel  
Vice President, South Asia  
Inspection Panel

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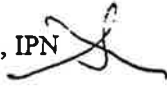


IE INSPECTION PANEL

# OFFICE MEMORANDUM

DATE: June 21, 1995

TO: Mr. Timothy Thahane, Vice President and Secretary, SECVP

FROM: Antoina M. Macedo, Acting Executive Secretary, IPN 

VISION: 82597

SUBJECT: **The Inspection Panel Investigation Report**

**Nepal: Arun III Proposed Hydroelectric Project and Restructuring of IDA Credit-2029-NEP**

Attached for distribution to the Executive Directors of IDA is a memorandum from the Chairman and members of the Inspection Panel on the above-referenced report.

Attachments



INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT  
INTERNATIONAL DEVELOPMENT ASSOCIATION

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Ernst-Günther Bröder, Chairman  
Richard E. Bissell  
Alvaro Umaña Quesada

RQ94/1

June 21, 1995

MEMORANDUM TO THE EXECUTIVE DIRECTORS

**SUBJECT: The Inspection Panel Investigation Report  
Nepal: Arun III Proposed Hydroelectric Project and  
Restructuring of IDA Credit-2029-NEP**

Pursuant to paragraph 22 of IDA Resolution No. 93-6 ("Resolution"), paragraph 53 of the Panel's Operating Procedures ("Procedures"), and in accordance with the terms of reference authorizing this investigation (IDASecM95-36), we attach the above-referenced report. The report consists of "The Inspection Panel Investigation Report - Nepal: Arun III Proposed Hydroelectric Project and Restructuring of IDA Credit-2029-NEP - Summary," together with two Annexes (1) "Proposed Arun III Hydroelectric Project and Credit 2029-NEP - Investigation" with Attachment 1, and (2) "Nepal - Proposed Arun III Hydro Electric Project - Summary of Conclusions and Recommendations for Further Actions," dated May 23, 1995 and Management Response, dated November 21, 1994. Please be advised that a copy of the Report has today been delivered to the President of IDA.

*G. P. Miller*      *Richard Bissell*      *Alvaro Umaña*

Enclosures



**INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT  
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June 21, 1995

**Inspection Panel Investigation Report  
Nepal: Arun III Proposed Hydroelectric Project & Restructuring of IDA Credit-2029-  
SUMMARY**

1. This report describes the process and summarizes the findings of the Inspection Panel's (the "Panel") investigation into alleged non-compliance by IDA with its Operational Directives ("ODs") 4.01 on environmental assessment, 4.20 on indigenous peoples, and 4.30 on involuntary resettlement during the preparation and appraisal of the above-mentioned proposed project and implementation of Credit No. 2029-NEP.<sup>1</sup> The Inspectors' findings, which are reflected in this report, are attached as Annex 1. Remedial measures proposed by IDA Management ("Management") prior to this report are included in Annex 2 which also includes Management's November 1994 response to the Request for Inspection. The investigation was conducted in two phases. In first phase the Inspectors interviewed staff and consultants and conducted a desk study in Washington. During the second phase the Inspectors carried out a field inspection in Nepal.

2. The Panel would like to express its gratitude to His Majesty's Government of Nepal and the people of the Arun Valley for their hospitality and assistance, and to non governmental organizations and Bank staff in Nepal for their logistical support. The Panel drew upon a vast reservoir of technical knowledge of staff in Washington whose recent work expedited the Panel's investigation.

**PROCESS**

*First Phase*

3. The Executive Directors' Resolution authorizing an investigation (the "Authorization") stipulated that the "Panel will take into account information and studies subsequently provided by the Government of Nepal, the Bank and other Co-financiers, as well as any remedial measures agreed by Nepal and the Bank, and taking into account the complexities of the issues involved, will examine whether the requirements of the above-mentioned ODs were observed in substance." The Resolution establishing the Panel (the "Resolution") requires the Panel to conduct an investigation and then issue a report of its findings and conclusions. In response to the Panel's findings, Management is required to submit a report with its recommendations to the Executive Directors within six weeks. The following outlines the process as it has evolved to date in this case:

- The Authorization instructed the Panel to "commence field work only after the Bank receives a decision from the Government of Nepal requesting the Bank's financing of the Project and should, to the extent possible, complete its work within the three-month period suggested by the Panel. Management should facilitate the task of the Panel with a view to enabling it to complete its task early." To avoid

<sup>1</sup> The Panel recommended (IDA.SecM94-378, Memorandum, December 16, 1994; informal note of January 9, 1995; and, IDA.SecM94-378/1, January 20, 1995) and the Executive Directors authorized (IDA.SecM95-36, February 2, 1995) an investigation into these three areas. The Request for Inspection which triggered the process (filed in October 1994) also alleged non-compliance with policies on disclosure of information and economic analysis. In its preliminary review the Panel stated that although there was a formal non-compliance with the provisions of BP 17.50, the disclosure policy was evolving so rapidly during the later phases of project preparation that full compliance seemed difficult. On compliance with various policy directives on the economic analysis of project alternatives, including environmental and social aspects, the Panel expressed concern about the "lack of equivalent levels of effort ... devoted to alternative economic analysis," particularly in view of the size and sequencing of the proposed project in relation to the overall economic and institutional framework. In the former area the Panel concluded that an investigation by the Panel was not warranted as it would not add to the facts established in its preliminary review. In the latter case, given the lack of comprehensive alternative analysis, the Panel could do no more than point out the shortcoming: an investigation was inappropriate since it would have resulted in the Panel undertaking activities outside its mandate.

any delays, the Panel informed the Executive Directors and the President that it would divide the investigation into two phases.<sup>2</sup>

- In mid-March the Government of Nepal ("HMG/N") requested IDA's financing. The Panel considered the findings submitted at that time by the Inspectors and a progress report by Management, prepared at the Panel's request. It was satisfied that the relevant issues identified in its preliminary review and further discussed in joint meetings with staff were being or would be addressed. The interviews with staff and consultants and the desk study in Washington were completed in mid-March.<sup>3</sup>
- An IDA mission visited Nepal in April 1995 ("April mission"). To avoid duplication of effort, the Panel notified the Executive Directors and the President of its decision to delay the second phase (field work) of its investigation until after Management had identified and discussed remedial measures with HMG/N.
- On May 23, 1995, Management sent the Panel a memorandum attaching proposed remedial measures based on the findings and recommendations of the April mission. (Annex 2) Management expressed the hope that with the adoption of these measures the Panel would find the project to be in compliance with relevant IDA policies. The proposed measures are included in the discussion below at paragraphs 5-24.

### *Second Phase*

4. With the HMG/N's consent, Messrs. Richard E. Bissell and Alvaro Umaña Quesada (the "Inspectors") conducted a field inspection in Nepal from May 27 to June 1, 1995, and the Executive Directors were so informed. Their objectives were to confirm the findings of the first phase of the investigation and to review Management's remedial proposals in terms of the requirements of the relevant ODs and the Authorization.

- The Inspectors met in Kathmandu with HMG/N officials, the Requesters, and representatives of

<sup>2</sup> See Inspection Panel, *Nepal: Proposed Arun III Hydroelectric Project - Initial Work Plan for Investigation* (IDASecM95-50, dated February 15, 1995).

<sup>3</sup> For notification of completion of the first phase. See IDASecM95-119, dated April 3, 1995.

the donor community and non governmental organizations ("NGOs").<sup>4</sup>

- Inspection of the project area (Arun Valley) included aerial reconnaissance of the entire valley, an expedition on foot along both hill and valley route alignments, visits to the proposed power house locations of Arun III and Lower Arun Hydroelectric Projects, and aerial reconnaissance of the Upper Arun Valley.
- The Inspectors held public consultations with people in the project area. A large public meeting was held in each of the towns of Amrang, Num, Chhyangkuti, Khandbari, Tumlingtar and Chewabesi. Seven meetings were conducted with small communities along both hill and valley route alignments. A total of more than one thousand people participated in the meetings. In addition the Inspectors interviewed and exchanged views with the Requesters and a wide range of other people.

### *Observations*

5. The investigation was the first recommended by the Panel and the first authorized by the Executive Directors; the process as it in fact evolved was not strictly as anticipated by the Resolution. After the investigation was authorized, Management made a substantial effort to bring the project into compliance with the three ODs.

### **FINDINGS**

6. The findings below reflect the Panel's analysis of the Inspectors' report and in view of Management's initiative and pursuant to the terms of the Authorization, this report also takes into account the proposed remedial measures in assessing compliance with the three directives.

7. After the April mission, Management pointed out in its transmittal memorandum to the Panel, that all the attached proposed remedial measures (Annex 2) would have to be satisfactory to IDA. In addition the memorandum stated that Management would communicate to HMG/N the criteria to be met for the measures to be satisfactory. In terms of timing, Management will require all such measures to be

<sup>4</sup> The Inspectors met with the following HMG/N officials: the Prime Minister, Minister of Finance, Minister of Water Resources, National Electricity Authority officials, and the Vice-Chairman of the Planning Commission.



either completed or defined and initiated prior to Board presentation of the proposed project.

### ***Findings on Environmental Impact Assessment (OD 4.01)***

8. **Management's Proposals.** The recommended measures relate to the direct impacts of the proposed choice of road alignment. A detailed comparative analysis of the valley and hill access routes, recommended by the Panel of Experts in 1992, was prepared after the April 1995 mission. It confirms the proposal that the access road should be built along the valley alignment provided that the Environmental Impact Assessment takes into account the following:

- (a) Spoils disposal;
- (b) Impact on wildlife and aquatic life:
  - (1) avoidance of Makalu-Barun Conservation Area or mitigatory and compensation measures;
  - (2) Sal Forest Patches: measures are to be included in the Regional Action Program discussed later in this report; and
  - (3) aquatic life; and
- (c) Impact of increased traffic on the market town of Hile.

9. **Panel of Experts ("PoE").** The establishment of a second separate specialized PoE consisting of social and environmental experts is now proposed but has still to be created and appointed.

- The Panel notes that the original PoE has not been convened since October 1992. Therefore it could not, as required, follow up on its recommendations. Mechanisms to ensure periodic PoE meetings and follow-up are therefore needed.

10. **Glacial Lake Outburst Flooding.** In addition to the measures proposed in Annex 2, Management has also addressed the problem of such flooding risks referred to in the Panel's preliminary report. In April Management convened a panel of experts which concluded that risks are real and that monitoring should commence immediately. HMG/N has arranged for financial assistance for a team of experts to carry out an investigation of the Barun glacier lakes starting towards the end of June.

11. **Road Maintenance.** During their field inspection, the Inspectors verified monsoon flooding as a significant natural risk that requires attention. Unin-

terrupted motorized access is necessary to ensure that equipment can be brought in to the project site during construction. Without this, there is a high risk of considerable project delays and higher costs.

- The Panel finds that the choice of the valley route will require provision for appropriate funding of contingencies to cover maintenance in the event of road wash-outs resulting from river flooding due to monsoon rains.

### ***Findings on Involuntary Resettlement (OD 4.30)***

12. **Credit 2029-NEP** (approved by the Board in 1989). The April mission found there are families seriously affected by the access road project in Tumlingtar who sought rehabilitation but received no assistance. The mission also concluded that there may well be more families in the Basantapur area who have been similarly adversely affected.

13. The mission also noted that HMG/N had paid compensation to most of the 1,635 families whose land was acquired for the hill access road project. However the legal process of transfer of ownership had been completed for only 15-20 percent; of this percentage, the land of only 18 families was in fact physically possessed by HMG/N.

14. With respect to those who were displaced in 1989-90, Management recommends that HMG/N investigate the conditions of the families *whose land was actually physically possessed* and in accordance with provisions of the borrower's guidelines offer rehabilitation assistance.

- The Panel notes that, although necessary both for those displaced and for a large portion of the Arun Valley population, provision for access to jobs/training is not adequately addressed.
- The Inspectors found that the land of those who filed the Request for Inspection had been acquired but not physically possessed. They have been adversely affected by uncertainties over the last half decade as the result of the change in access road alignment. Their future is still uncertain. (See paragraph 52 of Annex 1) Approximately 1,400 other families are in a similar situation.
- The Panel finds that IDA failed to observe in substance the policy requirements for supervision of resettlement components and conse-

quently failed to enforce covenants in the Credit Agreement.<sup>5</sup>

15. Management's proposed remedial measures with respect to land acquired but not possessed, as outlined in Annex 2, require that the borrower formulate a *time-bound* plan indicating which land is to be utilized for future road construction and which is to be returned, including measures for protecting the standard of living of those whose lands will be possessed and the procedures to enable original owners to regain their lands.

16. **Valley Route (Proposed Credit).** Management proposes an update of the Acquisition, Compensation and Rehabilitation Plan.

17. **Implementation of Resettlement Plans.** The Panel agrees with the 1991 consultant study of past experience in Nepal which concluded that more follow up and much more emphasis must be placed on monitoring and evaluation of both the land acquisition process and implementation. It is worth noting that both the Operations Evaluation Department and regional reviews of the Bank's experience with resettlement stress the central importance of early attention to strengthening governmental capacity to manage such programs. The studies point out that monitoring by IDA has been chronically inadequate despite consistent findings that oversight must be exercised constantly during implementation and beyond.<sup>6</sup>

### *Findings on Indigenous Peoples (OD 4.20)*

18. Management proposes that the three actions required by OD 4.20 with respect to indigenous people should be extended to all residents of the Arun Valley. These actions are (i) informed participation through public consultations, (ii) security over land tenure, and (iii) an action program with socially and culturally appropriate components. The "action program" means the Regional Action Program discussed further below.

19. The Inspectors found that people who qualify as "indigenous" under IDA's policy are scattered throughout the valley and live in conditions similar to those of non-indigenous people. Management's proposal that requirements of the policy be applied to

<sup>5</sup> See OD 4.30 paras 22 and 31. See also para 30, which requires that the resettlement plan and the borrower's obligation to carry it out be reflected in the legal documents. Other necessary resettlement-related actions must be covenanted.

<sup>6</sup> See, for example, OED Report No. 12142, "Early Experience with Involuntary Resettlement: Overview," June 30, 1993.

all inhabitants is appropriate and should bring the project into substantial compliance with OD 4.20 if its implementation is subject to continuous monitoring and supervision.

### *Findings on the Regional Action Program*

20. A significant number of actions required by OD 4.01 and OD 4.20 are to be included in the Regional Action Program ("RAP"). This is an innovative approach to an environmental action plan which has the potential to become either a model for future work or, if badly implemented, a serious weakness of the entire Arun III project.

21. Described in the Staff Appraisal Report of August 1994 as being "integral" to the project, the RAP has nevertheless yet to be completed. It would be the main mechanism for dealing with indirect environmental and social impacts — an extremely ambitious undertaking which in its original form contained 21 specific recommendations and programs to deal with a variety of complex issues.

22. **Forestry.** Effective forestry management is expected to mitigate the increasing biomass deficit.

- The Panel notes that preliminary actions to address this problem need to be completed. Measures to grant security of land tenure to forest user groups are now proposed. First, maps showing the boundaries of existing forests as well as those planned to be managed by forest user groups have yet to be prepared. Second, as of the date of writing, Management is still waiting for the planned review by the Bank's Legal Department of Forestry By-Laws. Depending on the outcome, Management intends, if necessary, to propose further remedial measures. The Panel also finds that continued technical assistance to be funded by donors other than IDA is critical to this component.

23. **Protection of the Remaining Cloud Forest.** Only patches of cloud forest remain and are located along the now abandoned hill route.

- The Panel finds that appropriate mechanisms for their protection have not been included under the RAP.

24. **Donor Support and Coordination.** Funding of the RAP is to be provided by major bilateral donors who must be committed to continuing support throughout the life of the project. The RAP involves

many different programs in many different areas, implementation by different executing agencies, and funding by a number of different donors.

- The Panel found inadequate capacity for sustained coordination of all these different aspects

25. **Institutional Aspects.** Management requires completion by the borrower of a redesigned and expanded RAP<sup>7</sup> prior to Board presentation. (Annex 2 at p. 3). The Panel notes that:

- Since it is the first time such a regional action program has been designed, those involved in designing the original RAP need to continue their work to ensure that an institutional memory is established in order to inter-link, in the future, all the different actions.
- To implement *pre-emptive* environmental and social measures institutional capacity needs to be strengthened *now*.
- Responsibility for implementation appears to be fragmented. Direct mitigation measures are to be taken by one executing agency while indirect and induced ones are to be taken by another. The design does not yet provide for a single chain of command or integrated organizational structure in the Arun Valley to oversee implementation.

26. Given the complexity, scale and scope of proposed developmental interventions in relation to the existing institutional capacity in Nepal, the Panel is doubtful that the project's mitigatory environmental and social measures can be implemented within the time frame proposed by IDA.

- The Panel finds that the lack of institutional experience will necessitate implementation of a massive institutional capacity building plan and identification of further resources to fund it, as well as intensive IDA staff supervision throughout project execution.
- In relation to environmental measures in particular, the Panel notes that OED studies indicate that projects often suffer, or take much

<sup>7</sup> The original studies conducted by the King Mahendra Trust ("KMTNC")—a local NGO—which provide an excellent basis for the RAP, were completed in 1991 based on the hill route alignment. Additional and updated KMTNC studies were completed recently in February 1995. Due to the change in road alignment in 1992 the borrower has to redesign rather than update the RAP.

more time and funding than anticipated, because of an underestimation of the effort needed for building adequate institutional capacity as well as from a lack of constant supervision.<sup>8</sup>

## CONCLUSIONS

- Based on its assessment of proposed remedial measures the Panel concludes that IDA is moving towards and intends to comply in substance with the requirements of the three operational directives
- Specific remedial measures proposed by Management on:
  - Environmental Impact Assessment
  - Involuntary Resettlement
  - Indigenous Peoples

appear to be adequate if and as long as they continue to be consistent with the applicable operational directives, and appropriate follow-up mechanisms are introduced

- Overall remedial measures relating to implementation—institutional building, monitoring and evaluation—require further attention throughout-out as well as beyond the project construction cycle
- There is need to assess whether the measures can be implemented within the time/cost frame proposed for project construction taking into account:
  - existing institutional capabilities
  - the feasibility of strengthening existing institutional capacity to a level required to implement complex environmental and social measures under the Regional Action Program in the time planned

## Attachments

<sup>8</sup> See, for example, OED Report No. 12403, "Annual Review of Evaluation Results 1992," October 13, 1993.



**The Inspection Panel**

**PROPOSED ARUN III HYDROELECTRIC  
PROJECT**

**and**

**CREDIT 2029-NEP**

**INVESTIGATION**

**Report**

**June 21, 1995**



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## 1. Prior IDA Experience with Hydroelectric Projects in Nepal: Resettlement

1. IDA places emphasis on its staff and its borrowers learning appropriate lessons from one project to another. Indeed, the 1994 Bank-wide review of resettlement referred to a "Bank decision that the Bank will not finance any new project involving resettlement for a borrowing agency that is not living up to its existing commitments for resettlement in an ongoing project." For this and other reasons, the experience in Marsyangdi is an important baseline for viewing compliance with policies in energy projects in Nepal. The most recent experience before Arun III between Bank staff and the question of applying resettlement policies in Nepal occurred in the context of the Marsyangdi Hydroelectric Project (1984), Credit 1478-NEP. This project was not very extensive in impact, a 69MW facility, with over 200 families affected by the acquisition of land. The project documents negotiated between IDA and HMG/N included very specific requirements on resettlement, particularly in Section 3.07 of the Development Credit Agreement, in order to ensure compliance of the project with IDA's policy on resettlement as described in OMS 2.33. The most specific criteria was that the borrower adopt and implement a resettlement program satisfactory to the Bank by January 31, 1986.

2. This requirement was laid on the borrower despite the fact that the borrower's legal code for land acquisition did not conform to IDA policies on resettlement. In a variety of ways, IDA insisted on broader application of compensation and rehabilitation than was understood by the legal framework in Nepal. And the plan for compensation went far beyond the practices for road construction then prevailing in Nepal.

3. The early supervision reports of the Bank indicated concern about the ability of the borrower to meet that requirement. Indeed, in March 1986, the borrower was already out of compliance, and was given a new deadline of 30 June 1986. By the time of the next supervision mission report in July 1986, the mission was able to note receipt of a three-page letter from the Marsyangdi Project Manager outlining his approach to the issues, but considered insufficient by the mission experts. At that point, virtually all the land had been taken for the project. As a result, the effect of the required plan would be mitigative at best, rather than pre-emptive. The borrower was given a new deadline of 31 August 1986.

4. The following supervision mission, in late October 1986, found that nothing had been done. The mission brought a resettlement specialist along to conduct the review of the borrower's planning, and to assist the borrower in improving the analysis of those being affected by the project. He provided extensive details about the creation of a viable resettlement and rehabilitation plan, e.g., the existing census looked only at landowners, and not at tenants; the need to differentiate between seriously- and marginally-affected people; the need to identify common or public areas that were acquired; and the need to provide assistance to communities where significant numbers of the displaced choose to

settle. Indeed, the conclusion of Bank staff at that time was that the general policy of the borrower on resettlement "falls short of Bank policy on resettlement." The mission also stated that the project executing agency was not staffed to carry out the work, and urged that consultants be retained to provide strong support. The borrower chose not to pay for this additional work, and requested that the Bank provide additional funding. By February 1987, all reports indicated no progress.

5. A review by the Bank in May 1987 was rather more concerned about the project as a whole: NEA's compliance with the agreements reached in prior reviews was described as "extremely poor." This was followed by a statement in July 1987 to the Bank that "the above consultants would not be asked to develop a resettlement action plan, as the project does not envisage the resettlement of persons affected by the acquisition of their land and homes on top of the compensation paid them in accordance with the prevailing rules and regulations of HMG/N." Bank staff were clearly puzzled about how to go forward, given the lack of documentation to help in determining what exactly had transpired to date or in determining a course of action for bringing the project into compliance with covenant 3.07. Management was struck by the divergence between the technical expertise employed in the resettlement component of the project and the actual building of the dam, tunnel, and powerhouse and far from being in compliance with Bank guidelines on resettlement. Again, the Bank urged hiring a consultant team locally to come up with a Plan, such hiring to be done by 1 April 1988.

6. By the middle of the summer, no consultant had been hired yet. By August 1988, the implementer was reported as seeking bids. In fact, the consultant firm was finally chosen in the fall, and started work. Prior to its supervision mission of May 1989, the Bank received a draft Action Plan Report to review. It needs to be recalled, however, that the hydroelectric project was due for commissioning in September 1989. It became a race as to whether the project would be completed before the resettlement plan would be approved. The draft Action Plan did need additional work according to Bank staff: a more rigorous methodology, a budget, a schedule for implementation, and a clearer definition of beneficiaries. The deadline for the Action Plan was 30 June 1989, and the borrower was requested to include costs of implementing the Action Plan in the next fiscal year budget.

7. The hydroelectric project was completed well in advance of the resettlement plan. The Action Plan was reported completed by the supervision mission of December 1989, and at this time the burden of paying for implementation was shifted to the Bank (presumably through the follow-up sector-wide Power Project). The Plan identified a significant pool of families affected by the project -- indeed already adversely affected by virtue of their remaining landholding being too small. After much negotiation, that number was reduced to 21 families as "seriously affected." The consulting firm then returned to the drawing board to establish what measures should be taken. In early 1992, the supervision mission could report that the final recommendation focused on a combination of training and employment for those 21 families.

8. The Marsyangdi project was completed without compliance on resettlement, or as one Bank assessment summarized the results of the resettlement effort: "Covenant, but not followed. Consultant plan included provisions, but never adopted under project."

## 2. Resettlement in the Arun III Access Road Credit

### Background of the Project.

9. The project, appraised in 1988 and presented to the Board in 1989, consists of the access road to the future dam site for the Arun III hydroelectric development scheme. It was presented as a separate project in order to accelerate the construction of the dam itself when the latter civil works would be ready for appraisal and approval by the Board. The construction of the road was intended to begin in October 1989, and thus allow for transport of construction equipment to the dam site in early 1992. Together with the hydroelectric works, this project was part of the government's least cost electrical generation plan developed with Bank assistance, and was initiated prior to completion of the Marsyangdi hydroelectric scheme in order to meet Nepal's electricity needs and potential sales of surplus power to India in the late 1990s.

10. This alignment of the road was a difficult issue to resolve in the history of the project. There is no "natural" route for a road in a watershed with such steep hills and unstable topography. When the IDA credit was finalized, the Hill route chosen actually represented a shift from the plan laid out by the feasibility study of 1987 funded by the Japanese International Cooperation Agency, which planned for the road to follow the river alignment to the powerhouse and dam site. The road funded by this credit became known as the "alignment," for the most part linking up existing towns along the ridges from the existing road head at Basantapur (a gravel road funded by Overseas Development Agency ("ODA")) to the construction sites up the valley.

11. The borrower in this case was the Kingdom of Nepal, with the beneficiary being primarily the Department of Roads, Ministry of Works and Transport, and secondarily the Nepal Electricity Authority ("NEA"). The credit was SDR 24.4 million (US\$32.8 million equivalent), the estimated cost of the road for which actual bids had not yet been received in the rush to approve the credit before the end of the fiscal year. The principal purpose of the project, justifying the cost of the road in this remote area, was to provide access for personnel, material and equipment to the up-river construction sites of the Arun III project.

### Building Capacity for Resettlement Management

12. The second stated objective of the project was to "strengthen HMG capabilities to administer rehabilitation of families affected by the project and manage environmental protection and conservation measures;" (Staff Appraisal Report, p. 12.) As a result, it was important to development of a satisfactory project that all provisions of OMS 2.33,

Social Issues Associated with Involuntary Resettlement in Bank-Financed Projects, be fulfilled. The project included not only a Land Acquisition, Compensation and Rehabilitation Plan (ACRP) with program elements costing \$1.6 million, but also consultancy services for preparation and supervision of the ACRP to cost \$1.2 million. \_

13. As already stated, the policy context for resettlement in this project was OMS 2.33, since the succeeding OD 4.30 on Involuntary Resettlement was not issued until June 29, 1990. At the same time, the new OD was under constant internal review at the time of design of this project, and so the Task Manager and his colleagues were aware of Management's guidance in the new OD 4.30. In the substantial core of the new OD, there was in fact little change from the OMS 2.33. In some areas of the new OD, there was an improvement in language from the OMS, and in other areas, it actually became less precise. The Bank staff and consultants offering advice to the borrower in meeting this policy requirement were helpful in guiding the borrower towards language in the new OD, thereby reducing the likelihood of criticism of a project that would take some years to complete. But in spirit and major substance, the OD and the OMS were close to each other.

14. OMS 2.33 provides a succinct statement of the purposes of the policy: "When development projects require people to be relocated, the Bank's general policy is to help the borrower to ensure that, after a reasonable transition period, the displaced people regain at least their previous standard of living and that, so far as possible, they be economically and socially integrated into the host communities. Planning and financing the resettlement should be an integral part of the project, and the measures to be taken in this regard should be clarified before, and agreed upon during loan negotiations." (para 2)

15. The OD thus creates a series of tests for compliance:

- o Does the project adequately recognize the range of economic, social and environmental problems that will affect people displaced by the project?
- o Does the project deal with the "long-term" nature of the hardship and damage it may cause?
- o Are the measures appropriate?
- o Are the measures carefully planned and likely to be carried out?

16. Implementation of the policy has required the Bank to address the question of defining a "resettled person" or "displaced person". In this case, particular attention had to be given to the question of which families were "seriously" affected or displaced. The struggle between IDA Management and the borrower over this practical issue continues. The OD notes that "particular attention should be paid to the needs of the poorest groups to be resettled." Later, at paragraph 16, it notes that "Vulnerable groups at particular risk

are indigenous people, the landless and semilandless, and households headed by females who, though displaced, may not be protected through national land compensation legislation. The resettlement plan must include land allocation or culturally acceptable resources and earning opportunities.”

17. Does the resettlement plan adequately recognize the losses of families in the area of the project? The OD spells out the fact that “some types of loss, such as access to (a) public services; (b) customers and suppliers; and (c) fishing, grazing or forest areas, cannot easily be evaluated or compensated for in monetary terms. Attempts must therefore be made to establish access to equivalent and culturally acceptable resources and earning opportunities.” In the case of the Arun III access road, for instance, the effect upon the entire portering business and established markets is very substantial; yet the question of dealing with those effects has been entirely swept into the Regional Action Plan.

#### Treatment of Seriously Affected Families.

18. Some observers have dismissed the scale of the resettlement problem in the Arun case. Relative to the Narmada experience, or most other South Asian projects, the number can seem trivial. But that is not the test for IDA policy. In OD 4.30, the question of scale is addressed in paragraph 4, where reference is made to “large-scale population displacement.” The number used is a negative reference “...a few people (e.g., about 100-200 individuals)”. This is substantially less individuals than the approximately thousand families losing land in the Arun III project which means the issue has to be seen as a serious compliance challenge. Indeed, in compliance with this, a formal plan was required, and has been provided by the Borrower in the case of both the hill route Credit and the proposed credit, and have been and will be examined for acceptability by IDA.

19. Underestimation of numbers affected is common in projects. As pointed out in one Bank study, “Surveys carried out in the early stages of the project usually covers only those who are directly affected by loss of property or who are “displaced” and it is only much later other forms of impact is recognized.” In the case of Arun III, the loss of jobs and traditional markets will be wide-scale with thousands of families “seriously-affected” without losing any land at all, since the land is only one source of income. Nevertheless, in this case the Board requested the Panel to look only at losses due to the taking of land. By specifying a focus on “seriously affected families,” the Board has created a category that does not exist in OD 4.30, and indeed, is not addressed in the current principal Bank guide to the subject, Resettlement and Development (1994). The policy, on the other hand, appears to state that all losses are to be taken seriously; the construct of “seriously-affected” families as one category in the road projects seems to be a compromise with the borrower to limit the application of the extensive provisions for resettlement to a minority of those losing land.

#### Monitoring and Evaluation.

20. These issues in the resettlement process are given extensive attention in paragraph 22 of the OD. It lays down a range of needs, such as supplementation of in-house

monitoring capacity with independent experts. It states that "the borrower should be required to continue impact evaluation for a reasonable period after all resettlement and related development activities have been completed. The borrower should also be required to inform the Bank about the findings." It is a recurrent theme of memoranda from resettlement experts in the 1992-1994 period that IDA needs to provide very substantial independent oversight in order to improve the likelihood of compliance with policies during implementation. Indeed, it might be reasonably argued that Nepal has been a laboratory for ACRPs in the Arun Valley that are widely admired for their design, but with inadequate attention to solid implementation. But in the wake of the Wappenhans-led efforts, such a conclusion would not be surprise to anyone, including people within the Bank.

22. Responsibility for resettlement, according to paragraph 6 of OD 4.30, "rests with the borrower." Nevertheless, it is also clear that IDA is responsible for assuring compliance with OD 4.30. The Staff Appraisal Report and the Memorandum and Recommendation of the President have to certify that the borrower's plan do comply with IDA policy requirements. Between those two kinds of responsibility, the reality is that "ownership" of the resettlement issue is hard to find. According to a Bank review in 1993, "few countries have demonstrated their commitment to the principles and objectives of resettlement articulated in OD 4.30. Equally few Task Managers are convinced about its importance, necessity, and viability." Against that background, it is necessary to be careful in assessing the real progress made in the Arun III project. With regard to supervising the Credit 2029-NEP, for instance, the borrower indicates that it filed three reports on the ACRP issues between 1988 and 1990, and yet there is no record yet found of those reports being scrutinized by IDA.

23. The core issue is made clear by all Bank reviews: as the 1994 Bank-wide review stated, "The ultimate test of consistency between resettlement operations and policy is income restoration and improvement." The test is not land, and it is not a short-term process. It reinforces the point that "very few projects have included sufficient measures or methods to assess whether income restoration is being achieved." The review goes on to say that "land-for-land" is central in rural areas, but in this case where crop-based income is projected to decline drastically (see the KMTNC studies), the sources of off-farm income are as important.

#### Women and other Vulnerable Groups.

24. The policy gives special attention to vulnerable groups, along with the importance of using the resettlement frameworks to both shelter and promote the development of those vulnerable groups. Women and children can easily suffer within the household framework when cash is monopolized by men and used for conspicuous consumption. In that sense, such vulnerable parts of the population become separate classes of "seriously-affected" people too often invisible to monitors without the survey tools to see their losses. Current state of the art surveys of household welfare can disaggregate the condition of women, in order to ensure they are not silently penalized by the compensation system that does not take them into account. In the case of Vietnam

Highway Rehabilitation Project, 30% of training funds were reserved for women. In the case of the Arun projects, only token attention is given to women, and then in the context of the Regional Action Plan, not the ACRP.

#### Compensation.

25. "Delays in payment of compensation leads to erosion of the value of the moneys received. ... In fact, the norm in Nepal is government taking possession of land prior to the completion of the valuation process, thus removing any incentive for government officials to promptly pay compensation due.... On the other hand, experience has shown that compensation payments received too far in advance of the actual physical move are either squandered or snatched up by money lenders." With regard to types of compensation, "Bank experience with compensation exclusively in money has been negative.... The need for forms of compensation other than cash is most apparent in the case of tribal or other minority populations whose ancestral lands are expropriated by the State." From virtually all writings, it was essential for IDA to insist on adequate non-cash compensation in the Arun Valley, and yet when the land was acquired on the Hill route, the only compensation identified so far was cash -- no land, no jobs, and no training. The risk is that the same tragedy could emerge in the valley route as well.

26. One aspect of importance borrowed from the OD 4.30 was the scope of the policy. The OMS applied to hydropower and irrigation projects. The new OD was stated to broaden the treatment of resettlement to all types of investment projects, which had already become the de facto policy of the IDA. In one sense, this credit was a road project, and yet it had no viability except as part of a hydropower project. IDA showed good sense in recognizing that, whatever its categorization, this was a project that would require the resettlement of a substantial number of people, and that the benefits of the policy needed to be gained for the project from fair treatment of those being substantially affected by the construction. Management is ambivalent about whether they applied the OMS or the OD to this project. It could be argued only OMS 2.33 applies, but in fact, the staff did everything possible to apply the progressive thinking of OD 4.30, and to good purpose. The Bank can take credit for having applied the substance of OD 4.30 to the design of this road project when there would have been legal shelter not to do so.

27. Road projects in Nepal were not known in the 1980s for taking a developmental interest in those displaced by construction. While a legal framework existed in Nepal for the involuntary taking of land for government projects, it was narrow in scope, and was of sufficiently little value to owners and tenants that most issues of compensation were simply settled administratively. Protests and appeals were virtually unknown. Land-owners tended to be grateful for whatever they received, as opposed to feeling they had true legal recourse to ensure fair treatment. This was particularly true in remote hill and mountainous areas where the local authorities were not operating in a democratic framework. The first Land Acquisition Act was passed in 1956, with subsequent revisions. When the legal framework was examined in the course of designing this project, Bank staff found it to be manifestly inadequate for meeting OMS 2.33 (especially

with regard to informal tenants and the landless, and the determination of compensation levels across the board), and successfully pressed the borrowing government to issue special-purpose "guidelines." As we shall see below, the government argued that it could not alter its underlying framework for land acquisition without jeopardizing a host of projects funded by other donors. Instead, the Bank and the government compromised with ad hoc guidelines, unique in Nepal's history at that time. The government was careful to ensure that the guidelines did not apply to other development projects, but the Bank staff felt they had established a precedent for subsequent projects in that country.

28. Resettlement in Nepal has been both spontaneous and government-directed during recent decades. From the 1950s until the 1970s, the government's policies and its Nepal Resettlement Company relocated large numbers of farmers to the lower elevations of the country -- the Terai region -- and the policy of encouraging such movements was reversed only in 1985 when the adverse environmental consequences of such large-scale shifts were recognized. The history of such resettlement was not particularly happy from the farmers' point of view, either -- with maladministration common and a lack of follow-through in ensuring land rights and extension services as farmers moved into new territory. These difficult precedents are cited as reasons for the farmers along the Arun road construction being reluctant to take up the offer of "land for land" instead of cash. Their experience with the government arranging such swaps was not positive. Indeed, the government's own experience was such as to discourage its senior managers from taking up an active role in resettlement in the Arun Valley. Even where landholders were seriously affected, the government's instinct was to award cash more generously than usual, rather than become involved in relocating families to new land.

29. In the light of such experiences, it is important to recognize the issues at stake in the Bank laying out as a major goal of the project to strengthen the government's capacity to manage rehabilitation of displaced families. All parties agreed that its capacity would have to be not merely improved considerably, but almost built from the ground up, to be able to carry out the Bank's objectives in resettlement; the question was whether such capacities could be established quickly enough to have impact on this project.

#### IDA Compliance with OMS 2.33: Appraisal Phase.

30. The provisions of OMS 2.33 are quite explicit about the need for extensive early planning for resettlement issues. Whenever people are to be displaced, the borrowing government must have a resettlement plan, however brief or extended. The nub of the plan, as it would be stated similarly in the follow-on OD, is that "settlers are afforded opportunities to become established and economically self-sustaining in the shortest possible period, at living standards that at least match those before resettlement." (para 18) IDA policy is not prescriptive about how to achieve the desired outcome, but it does demand a clear path to achieving such an outcome for those whose land is taken. The second major area of emphasis in the OMS is that of compensation -- both in terms of insisting on a broad definition of what assets deserve to be recognized in calculating compensation, and ensuring that replacement value is taken into account, as well as



dictating the means: experience “tends to show that payment of cash compensation alone is often a very inadequate strategy for dealing with the displaced.” (para 19)

31. Timing is all-important for the policy. “Planning for resettlement should begin as early as possible.” Indeed, “completion of detailed resettlement planning is required before the negotiation of the project loan.” (para 21) To emphasize, the OMS does not allow flexibility on this issue. The plan must be completed before negotiations can take place. The sequencing is quite clear:

- o At the time of project identification, the magnitude and nature of resettlement must be identified, past experience should be reviewed, and the basic legal framework has to be reviewed “at this stage.”

- o At the time of preparation, resettlement components must be developed at the same pace, with involvement of many disciplines, in particular sociologist/anthropologists and resettlement specialists. Design and schedule have to be completed before the appraisal mission, in order to assess various resettlement options.

32. The Hill route project began badly in terms of compliance with OMS 2.33. The pre-appraisal mission in October 1987 found that the project was moving towards appraisal without a clear understanding of how many people would be affected by the road, and without a plan from the borrowing government for dealing with the issue. Indeed, the thrust of the report of the pre-appraisal mission was that the government should be encouraged to move the people quickly so that they would not be in the way of construction machinery, and no mention of rehabilitation. Indeed, the alignment of the road was not yet set, and therefore it would not be possible to determine the number of people affected until the road alignment was set at the appraisal stage. The Task Managers were warned at that time, that compliance with the provisions of OMS 2.33 regarding furnishing the Bank prior to appraisal with a proposed R&R plan appeared not to be feasible. In its determination to get construction underway by November 1988, the careful steps laid out in OMS 2.33 were being telescoped into the period between appraisal and negotiations.

32. The Bank postponed further work on resettlement until the appraisal mission would examine this issue, and in the event that substantial resettlement is required, HMG/N would then be requested to formulate a plan for resettlement of displaced families and for compensations to farmers. This, then, was a project being rushed to appraisal (target February 1) that did not have a final road alignment, did not know how many people would be displaced, and the government had not begun drafting a plan required in any case.

33. Others in the Bank expressed uneasiness over the approach being taken. There had not yet been any plans for including a resettlement expert in the pre-appraisal or appraisal mission despite an offer made in late January. The approach laid out in para 22 was not acceptable to many -- that measures would be taken only if “substantial resettlement is

required." It was pointed out that the steps for compensation and rehabilitation have to be taken regardless of the number of families involved. Nevertheless, the Task Managers continued to attempt to minimize the issue. In March 1988, they reported that it was likely that few if any households would be physically displaced by the selection of the road alignment. This is surprising since the road alignment was not set. Later that same year, the initial estimate of the number of families to lose land would be set at 2,355 families, certainly not within the plain meaning of "few, if any." Dissent gave rise to good sense, and it was finally agreed that an assessment of the impact of land acquisition and the development of an appropriate action plan would be conducted in conjunction with the ongoing detailed engineering financed under the TA-2 Project (Cr. 1378-NEP). This stimulated considerable discussion. The outcome was to devote greater attention to this and environmental issues. This activity which was to be carried out by the engineering consultants (Scott, Wilson, and Fitzpatrick) and was due to be completed by September 1, 1988, to enable the Bank to complete the appraisal of the Access Road Project according to OMS 2.33.

34. By May 1988, the issue of resettlement was making limited progress. The Department of Roads and the Land Department had engaged local consultants to survey those living along the prospective road alignment. IDA was prepared to propose to the borrower that an Environmental Unit be set up in the Department of Roads to oversee all environmental and resettlement issues. Oddly, in Bank discussions of experience with ongoing projects with Nepal at this time, there was no citation of problems in the Marsyangdi project under construction, where the same borrowing government was resisting all efforts to implement a rehabilitation plan for resettled families.

35. For reasons already cited, however, the project was not in compliance with OMS 2.33. After much consideration, the Legal Department's view was that safeguards were built into the conditions for going to negotiations; for that reason, Legal did not object to granting an exception to the procedures outlined in OMS 2.33.

36. The question of applying OMS 2.33 did not appear to enter active discussions with the borrowing government until IDA forced the issues in the post-appraisal mission in late May 1988 to examine environmental and resettlement problems in the road project. It became clear to the IDA team that the government did not intend to depart from existing Land Acquisition Acts, and that it did not want expatriates involved in the land compensation issues. A range of issues within the resettlement agenda bubbled to the surface at that time, including the process of valuing land, whether the government anticipated providing anything beyond cash, whether they intended to offer a real land-for-land option, and whether they recognized that some families were more seriously affected than others. In the follow-up letter to the Minister of Finance, IDA Management attempted to make it clear that the issuance of regulations to conform to OMS 2.33 would be essential to move to project negotiations.

37. Compensation became a sticking issue, affirming what the Bank-wide reviews of resettlement in all projects had stated: that landholders rarely received compensation

sufficient to restore their standard of living, and that governments tend to rely on outdated, understated estimates of land value. The government was deeply concerned about this, arguing that any change to "replacement value" from "fair value" would cause financial difficulties for all the other road projects in Nepal, whether locally-funded or donor-funded. These represented basic disagreements between IDA and the borrower. There then ensued extended discussions over compensation to tenants (particularly informal), and with regard to families seriously affected by land loss, a clear split developed. The initial proposal from the IDA staff to the borrower was that seriously affected families would be "those losing more than 25% of their main source of income" - a fairly standard practice at that time in Bank projects, and a standard that has been strengthened since then. The borrower never accepted that proposal. IDA also argued that the provision of land should be included as part of the rehabilitation measure.

38. When the borrower finally responded in negotiations in September 1988, the idea of new regulations for land acquisition and rehabilitation (as suggested by IDA) was rejected; administrative guidelines would be sufficient. The borrower also did not intend to fund any additional assistance needed to meet IDA policies -- payment for consultants, whether local or foreign, was taken from another IDA credit. In terms of actually completing the ACRP before negotiations, the borrower rejected that as well, promising only to send a draft of a "substantial part of the ACRP" to IDA for review before negotiations. IDA Management accepted these points, again postponing the day of reckoning on these issues despite guidance to the contrary in the OMS.

39. When the borrower did submit draft ACRP guidelines in October 1988, it was clear that they could not possibly conform to OMS 2.33. Besides many minor points, the guidelines attempted to set a standard for seriously project-affected families (SPAFs) as those that lost at least 50% of their major source of income. This standard was twice as difficult for landowners to meet as that set by IDA practice elsewhere. In a part of the world where many families already live at subsistence levels, the idea that they would not receive special rehabilitation if they lost "only" 45% of their major source of income was surprising. Additional problems of major importance included the way of pricing assets, the amount of the rehabilitation grants, the time period for payment, the role of tenants, and others. In the larger context, other violations of the OMS were evident: the ACRP would only cover the first year, when the policy clearly called for a complete plan; in effect, the appraisal process was never completed by Management's own standards calling for a complete ACRP. The Bank told the borrower in July 1988 that a complete ACRP was a condition of negotiations; the Bank was abandoning the standards of the policy already.

40. Attempts to reach a common definition of a "seriously-project affected family" (SPAF) were creating serious problems. In October 1988, Management sought a compromise, where the focus was shifted to those families "left with inadequate holdings to at least maintain their standard of living before the project." Such an approach was a means of moving towards a somewhat more qualitative definition, and at the same time emphasizing to the borrower the importance of baseline surveys of all those affected in

order to provide better rehabilitation. The Borrower appeared to accept that approach. Equally important, however, and particularly for SPAFs, was the view of the Borrower that it did not have to pay compensation for property before actually taking it for construction. Given the practice of many governments to take property first and pay later (sometimes much later), the Bank properly insisted that compensation be provided before possession.

41. Based upon these various discussions, the borrower returned to the Bank with a full set of draft Land Acquisition Guidelines, with apparently few of the verbal agreements of October-November 1988 included. The definition of SPAF had reverted to percentages, rehabilitation was weakened, the land-for-land provision became wishful thinking, and the process of appeal became non-existent. The legal framework for the draft Guidelines had been "defacto repealed." Bank staff sat down with the borrower in early December and wrote out the guidelines for the project, and insisted on their acceptance if the borrower wished to proceed with the project.

#### Negotiations and Board Approval.

42. Negotiations were held with the borrower in January 1989. Even after being negotiated, the road did not remain a fixed quantity. The road alignment was lengthened significantly after the conclusion of negotiations in order to meet various environmental tests and the need for a less demanding road for construction vehicles. Negotiations became a continuing set of decisions, changes, and amendments to the formal documents processed. In the rush to obtain funds from a particular fiscal year, the Staff Appraisal Report and related documents had to be circulated to the Board with approval from the borrowing government still pending. To ensure that the Guidelines developed for the project would be adopted as an integral part of the project, they were included in the SAR as Annex 7, along with the ACRP as Annex 8.

43. The Staff Appraisal Report created additional conditionalities with regard to resettlement, emphasizing that "it is a condition of effectiveness that a legal opinion be provided to IDA by the Secretary of Law and Justice confirming that provisions contained in the Guidelines are enforceable in accordance with the laws of Nepal." (SAR, p. 20)

44. The project went to the Board for approval without construction bids in hand. It was a costly decision. The project also went to vote in the Board without an adequate plan to deal with indirect effects of the project. In May 1989, the King Mahendra Trust was just coming forward to address the Terms of Reference for the study of basin-wide effects of the road and power project -- ultimately producing valuable recommendations rendered moot on the Hill route by virtue of the borrower proceeding to land acquisition without those pre-emptive and mitigative measures in hand. The Board approved Credit 2029-NEP on May 30, 1989.

### Oversight of Implementation.

45. The Credit was signed and became effective. The question then arose as to how much involvement from IDA management was appropriate for monitoring implementation. For the most part, at this stage, Management relied upon a resettlement specialist consultant to visit the project site occasionally, in the context of reviewing all the Bank's activities in that country. The borrower was expected to file reports on acquisition, compensation and rehabilitation: the Government states that apparently three were filed, in December 1988, November 1989, and July 1990.

46. Implementation is taken very seriously in OD 4.30. "Resettlement components should be supervised throughout implementation. Supervision that is sporadic or left until late in implementation invariably jeopardizes the success of resettlement." Paragraph 31 closes with a somber thought: "Complete recovery from resettlement can be protracted and can often make it necessary to continue Bank supervision until well after populations have been relocated, sometimes even after a project has been closed."

47. The first Bank oversight mission took place in November 1989. At that point the project had stalled with bids submitted that were too high and too few in number. All were rejected, and the borrower informed that rebidding could not take place until the economic situation was clarified. Both IDA and the borrower were preoccupied with the fact that the whole Arun III project approach had failed. Issues associated with the effective road credit took a back seat to the broader crisis of the project. Yet, in the meantime, the Department of Roads was taking measures under the existing credit. The Bank review found that survey work had continued and compensation had been disbursed under the acquisition, compensation and resettlement plan (ACRP) for approximately one-fifth of the property required for the access road. Since construction had not actually begun, however, families neither vacated their property nor received compensation for trees, crops or hardship. The Panel of Experts weighed in with their view that compensation ought to be expedited so that it would not delay the eventual road construction. The borrower clearly treated Credit 2029 as one to be executed.

48. The second oversight mission took place in July 1990. It included a resettlement consultant to supervise the land acquisition/family displacement/environmental aspects of the detailed engineering for the Arun III project, as well as examining the Arun-III Access Road (Cr. 2029-NEP) ACRP work already underway. The borrower was clearly anxious to get moving on the road work, even if there was not enough money in the existing credit to pay for the whole road. The borrower proposed building the first 40 kilometers, thus avoiding further delay in the project. The IDA mission tentatively supported this initiative, "especially since the ongoing land acquisition/compensation process has already provided initial payments for upwards of 40% of the estimated 2,000 access road project affected families and undue delay would complicate the situation in the field." Again, resettlement issues demanded little attention. The project was going through another design crisis -- with a donors meeting in Katmandu at the same time, to consolidate the whole project into one bidding process. The access road continued to go forward: it was expected that disbursement of compensation for the land affected by the

access road would essentially be completed by July 1991. No objections were made by the Bank.

49. By the time of the next supervision mission, in December 1990, a change in perspective was emerging in the oversight process. The attention of virtually everyone in the mission was in negotiating the design of the combined project yet to be put together and financed; tender documents were in preparation, and managers were rapidly moving towards prequalification of contractors. For IDA, the importance of Credit 2029-NEP was not in what was happening on the ground to farmers, but rather on the hurdles to be jumped in order to shift those resources into the new combined project. The borrower took a rather different perspective, and wanted again to begin spending the money, proposing that they be authorized to use some of the credit proceeds to procure camp facilities and standard construction equipment. Despite the presence of a resettlement expert on the mission, the Bank raised no issues.

50. Documentation on subsequent supervision missions have not been reviewed. Nevertheless, staff interviews have made it clear that the Credit 2029-NEP was essentially forgotten, other than the legal/financial questions of how to restructure it so the money never disbursed could be devoted to the new, much larger Arun-III project.

51. It is not apparent that any problems with the implementation of the ACRP on the Hill route were identified through the supervision missions. On the other hand, independent studies by Bank consultants were increasingly raising questions about the impact of the resettlement policies of the implementing agencies. An early 1991 study by T. Ragsdale and A. Molnar, for instance, identified the sociological weakness of the Bank's approach on the Hill route. "One outstanding problem in the Arun case as well, however, is that many families have already spent the cash compensation on debts, unnecessary purchases, or subsistence needs and have been unable to reinvest in capital assets." The study became even harsher in its conclusions: "In light of the lack of field-level monitoring and evaluation that has characterized both the resettlement and land acquisition processes in Nepal, it is clear that the government is not learning the lessons of on-going experience with resettlement. More follow up in both of these areas in ongoing projects, such as the Arun III Access Road and Hydroelectric Project, is needed and much more emphasis and resources need to be placed on monitoring and evaluation."

52. Some of the most serious problems came to light only with the publication of the Environmental Impact Assessment for the Valley Route. (JV Arun III, "EIA for Arun Access Road -- Valley Route," September 1992) The JV had sent their sociologist to the Hill route some two years previously, to conduct an informal survey of what happened in the land compensation process on the ridge route. It turned out that the implementation process had definitely not enabled recipients to restore their standard of living to prior levels. Why? The largest use of cash compensation was to pay off existing debts. This was not by choice -- since the land was collateral for debts, creditors demanded immediate payment when cash was received. The second-largest use of cash was for marriages, funerals, and festivals. For those who wished to buy other land, they

found that land prices immediately inflated, and asking prices for land were twice as high as they had been. Finally, there was tremendous confusion about the official procedures for making appeals, complaints or queries. (Ibid., Annex 4.13, pp. A4-35-36).

53. The greatest problem for those receiving compensation or facing resettlement on the Hill route was the decision in 1992 to shift the road alignment to the river valley. The impact on former property owners was catastrophic in a number of ways: (1) they had lost title to their land to the government; (2) the cash compensation they had received for title had been largely spent in non-productive purposes; (3) if the government were to attempt to follow the letter of the law, by offering the land to original owners at the price they were paid, they would not have the cash to regain the land, and it would be auctioned to others; and (4) the road would not go through their communities, thereby depriving them of immediate alternative income opportunities. On top of this, the attention of IDA shifted entirely to the valley route, leaving them forgotten in an outlying area.

54. A modest degree of attention was given to this issue by the Bank's resettlement experts and by the project's Panel of Experts. One idea was to encourage the Asian Development Bank to create a loan fund for farmers to buy back their land, but nothing more was heard about that. In the Seventh report of the Panel of Experts, the problem of the people on the ridge route was taken up, and remedies urged before additional hardship was suffered by those landowners, but nothing was known to have been done at that time. Indeed, when the road alignment was shifted to the valley, and an environmental impact assessment undertaken, that report stated that "the JV's surveys during the summer of 1992 indicate considerable local concern over the possible loss of investment values if the Hill Route is no longer chosen." (JV Arun III, EIA, September 1992, vol. 1, para 3.4.12)

55. The issue remained unresolved. The borrower took no action. When the joint donors' mission visited Katmandu in May-June 1993, they made it manifest that the new combined project could not go to negotiations (scheduled for October 1993), without a clear policy regarding land already acquired along the hill access road alignment, especially with regard to land no longer required (as above Changkuti) or which HMG/N will use later. The government's commitment was to build two limited spur roads on part of the Hill road alignment, but at some distant time in the future when much of the damage to communities would already be done, and resolution of the unused areas was not accomplished. The new government, in the spring of 1995, decentralized the issue to the local villages, providing them with block grants to cover all local needs, including presumably the resources to build the spur roads. Local village heads consulted by the Panel indicated a strong interest in following through at their own initiative with the spur roads, but also indicated that there was tremendous competition for those block grant funds from needs in health, education, water, and so forth.

56. After the Inspection Panel raised this issue in its preliminary review in December 1994, Management stated that a commitment was forthcoming from the borrower to re-sell the land to the original owners, as provided under the laws of Nepal.

57. Instead, the Government sent a letter to the Bank on April 5, 1995, outlining a policy for the landholders on the Ridge Route, allowing them to retain use of the land indefinitely irrespective of their title to the land, that did not satisfy the Bank's requirements laid out above. The Government offered no further assistance to those landholders.

58. As the Requesters had submitted to the Inspection Panel, the resettlement issue on the Hill Route had suffered abuse by neglect. Substantial damage to the interests of the farmers on the Ridge Route had come first through an inadequate compensation system (cash only, and no rehabilitation) that manifestly failed to comply with the ACRP, and then secondly through relocation of the route to the valley, thus driving down the value of the remaining land of the farmers who had lost part of their acreage. Management in their most recent mission make it clear that a time-bound plan for those farmers and landowners will have to be developed as part of the current credit.

### **3. Environmental Assessment in the Arun III Access Road Credit**

59. Four alignments were considered with the dual objectives of providing access for personnel, material and equipment to the hydroelectric project (dam and power house), as well as facilitating economic development in the Arun Basin by linking many of the existing towns, which are located primarily along the ridges. The Hill alignment, with a total of 197 kilometers, was chosen and justified both in economic as well as environmental terms. At that time a two-pronged strategy was followed by HMG/N: build the road under the responsibility of the Department of Roads and undertake detailed engineering and environmental studies for the hydroelectric project under responsibility of the NEA. The initial environmental studies leading to the road alignment for Credit 2029 were carried out by the Department of Roads of HMG/N in 1987, before either OD 4.00 Annex A: Environmental Assessment (October 31, 1989), or OD 4.01: Environmental Assessment (October 3, 1991) were in effect.

60. The Staff Appraisal Report for the Arun III Access Road (May 12, 1989) refers to the design and construction methods for the proposed alignment as environmentally "state of the art" for a major road project in Nepal. Paragraph 3.08 of the SAR states that the violence, destructiveness and unpredictability of the rivers in the area are the primary reasons for the choice of the ridge alignment: "The road has therefore been chosen to avoid rivers as far as possible, and to follow the contours closely in order to minimize the quantities of cut and fill, and to reduce negative environmental impact."

61. Procurement under this project was not successful, as already noted. In 1992, HMG/N decided to shift to a one-pronged strategy to accelerate project construction by having both the road and hydroelectric project under one large contract for all the civil



works, and under the responsibility of a single contractor. The entire responsibility for project execution was also shifted to the NEA.

#### **4. Resettlement in the Arun III Hydroelectric Project -- Valley Route**

62. The shift from a two-stage project to a one-stage project did not at first involve a change in the road alignment. From the time of the failed bids in 1989, and the initiation of planning for one-stage bidding of the entire project, until 1992, the planning appears to have been remained focused entirely on the Hill route design. Nevertheless, when engineers began examining ways of reducing cost, construction time, and implementation risks, the shift towards a shorter route up the valley became almost inevitable. The proposal was developed rapidly in 1992, with a revisit of the Japanese-surveyed route from the mid-1980s, an environmental review, a submission to the Panel of Experts, and agreement between IDA and the borrower that the new route alignment should be adopted.

63. Resettlement played its role in the planning for the valley route. Bank resettlement experts were brought into the planning process in late 1992, and fortunately the same people were involved who were familiar with prior experience in Marsyangdi and the Arun Access Road credit ridge route. The environmental impact assessment produced by the engineering consultants, JV Arun III, included a straightforward section on the need for revision of existing land acquisition guidelines as well as "issues arising from the hill route land acquisition and compensation process."

64. The EIA identified a number of problems. To a degree, the authors were handicapped by the fact that the alignment of the Valley Route had not yet been laid out in the field, and so its analysis of resettlement was only an estimate. ACRP surveys had not yet begun, of course, and so their estimate of 640 families being directly affected would have to be confirmed later. However it was generally thought "that the families affected along the Valley Route are likely to be poorer on average than families along the Hill Route." In other words, compensation and rehabilitation issues would be even more significant in their lives. For the EIA authors, "Limited data suggest that as yet the ACRP process is not sufficiently evolved to fully protect, compensate and rehabilitate families affected." (EIA, vol. 1, para 4.3.3.2)

65. The analysis of the EIA drew extensively on the problems encountered already on the Hill Route. While applauding the design of the guidelines for land acquisition on the Hill Route, the EIA authors pointed out that reality had undermined their effectiveness. The guidelines were "based on the premise that resettlement of affected families to new land is impractical, mainly because, firstly, there is no new land available, and secondly, families do not wish to leave the area of their ancestral homes. Therefore, compensation is cash-based." (EIA, vol. 1, para 5.2.2.1) As implemented, the guidelines fell short of

meeting OD 4.30, according to the EIA, for a variety of reasons: (a) the majority of cash recipients spent their compensation of non-income producing expenditures -- farmers in that area were simply not accustomed to dealing with significant amounts of cash; (b) "the effect of ACRP on the Hill Route has been to inflate land prices far beyond the compensated value, thus making the purchase of replacement land impossible for most PAFs;" (c) delays between property valuation and the payment of compensation causes depreciation in purchasing power, aggravated on the Hill Route by the government allowing the farmers to remain on the land without title and thus able to maintain their income level temporarily; and (d) the general level of understanding of the compensation arrangements was low, especially in the case of SPAFs, for whom additional compensatory measures were envisaged. The EIA then came up with a list of twelve substantive recommendations for improvements in the land acquisition guidelines and the ACRP for the Valley Route -- many of them focused particularly on SPAFs.

66. Under IDA policies, a draft ACRP was required before appraisal of the project. In December 1992, it was pointed out that the appraisal mission was scheduled for March 1993, and yet the borrower had effectively not begun to do appropriate work on an ACRP. The problems of meeting IDA policies were extensive:

- (a) The legal basis for applying the Land Acquisition Guidelines to the elements of the project other than the road did not exist;
- (b) There were three different ACRP teams, each operating according to different methodologies;
- (c) There was no single contact point in the project for families that would be affected;
- (d) There was no indication that land for land existed as an option, even though 16% of the families indicated a desire for such a compensation transaction;
- (e) The appeals process on the Hill Route never operated appropriately, and there was no indication that the borrower intended to do better in the Valley Route;
- (f) There was no suggestion that the project planned to offer seriously the other forms of rehabilitation for SPAFs, such as jobs or training, essential for restoring their standards of living according to IDA policies.
- (g) It is not clear that any measures were taken to avoid ACRP implications in the siting of the road, and that input needed to be taken by the road engineers as soon as possible to avoid the same situation in the valley;
- (h) How the ACRP for the transmission line would be developed was not established, and no one seemed to be taking responsibility for it;

(i) There was not an adequate monitoring and evaluation institution or program for the ACRP;

(j) Confusion among landholders over compensation and rehabilitation was rampant, and needed to be sorted out through distribution of a comprehensible "due process" manual;

(k) Much more extensive community consultation was needed before determining land values.

67. By the time of the joint donors' mission in May-June 1993, they had in hand a draft ACRP report dated April 1993. It did not yet conform to OD 4.30, and IDA proposed to the borrower that the report would have to be "operationalized ... into an action plan in line with the World Bank operational directive on involuntary resettlement. The deadline for the new action plan was August 1993. The borrower was put on notice that negotiations could not take place in October without "formal adoption of the new land acquisition guidelines and the Action Plan for the ACRP, the latter in line with World Bank policies respecting informal tenure arrangements, informal land holdings, vulnerable communities, public consultation and so forth."

68. The Bank appears to have sent an ambiguous, two-part message to the borrower at the time of the joint donors' mission in September-October 1993. On the one hand, "full agreement" was reached between NEA and the Donors on substance, implementation arrangements and financing of the ACRP. That suggests that the ACRP was a done deal. At the same time, the donors insisted on certain actions by the NEA by November 1993 for implementation of the ACRP, as shown in an Annex. In fact, in that annex, many more changes were proposed for the draft ACRP. As the winter dragged on, the gap between the ACRP and IDA's policies was not closing. Even as late as February 1994 there remained 22 major areas for changes that were necessary to have an acceptable ACRP. Management was already willing to slip deadlines -- at that point the draft SAR stated that an acceptable plan would be developed during negotiations, but others attempted to stick to the original commitment that receipt of a satisfactory resettlement plan should be a condition of negotiations. Another attempt was made to obtain an acceptable ACRP in May, since the ACRP was not yet in compliance for negotiations.

69. Nevertheless, on May 26, senior management requested agreement of the Chairman of the Loan Committee, to proceed to negotiations leaving pending some key resettlement and ACRP issues to be taken up at the time of negotiations:

(a) the membership and operational details of the appeals forum, which is part of the grievance redress system;

(b) the level of compensation payable to tenants (both formal and informal); and

(c) the criteria for and level of compensation payable to people affected by transmission line right-of-way restrictions.

Negotiations were held in late June in Washington, and a mutually-agreeable ACRP appeared to emerge. Even though negotiations were closed, disagreements over specific provisions continued in subsequent months. The Pre-Board Mission of September found itself renegotiating various ACRP issues, both substantive and procedural.

70. When Management sent its most recent mission to the field in April 1995, they returned with a call for still more work on the ACRP before presentation to the Board: "Because of unforeseen delays in implementation of the project, the ACRP for the valley route is in need of updating, to take into account changes in baseline data, cost and budget. As conceived in the ACRP the above updating would involve clarifications on certain related matters."

## 5. Environmental Assessment in the Arun III Hydroelectric Project

### Background.

71. In 1987, the initial feasibility study of the Arun Hydroelectric Project funded by the Japanese International Cooperation Agency (JICA) had planned for the access road to follow the river alignment to the power house and dam site. After the procurement failure of Credit 2029 on the hill alignment, HMG/N decided to go back to the original valley alignment. Based on NEA and consultant reports, a 122 kilometer valley route was chosen, and the decision was submitted to the project's Panel of Experts (PoE) for endorsement.

72. The process of environmental assessment in the Arun Hydroelectric Project was affected by the existence of previous work under Credit 2029 as well as the introduction of OD 4.01 in October 1991. Although Credit 2029 had a different Task Manager and Division Chief, and the choice of hill alignment was supposed to be environmentally superior, Management took the position that the hydroelectric project could be "grandfathered" and did not need to comply fully with the new OD 4.01. Management's response cites in Annex A that OD 4.01 was applicable "where appropriate and feasible" to project with IEPS before October 1, 1991. As the Panel stated in its Report to the Board on December 16, 1994, it "saw no merit in the allegations that these policy documents are not fully applicable to Arun III." (see Annex A, page 3)

### Measuring Compliance.

73. Compliance with OD 4.01 requires that project specific environmental assessments should cover: a) existing environmental baseline conditions: b) potential environmental impacts, direct and indirect, including opportunities for environmental enhancement: c) systematic environmental comparison of alternative investment, sites, technologies and designs: d) preventive mitigative and compensatory measures, in the form of an environmental mitigation or management plan: e) environmental management and training: f) environmental monitoring. The environmental assessment for the Arun III

Hydroelectric Project did not follow this comprehensive approach, instead it followed a piece-meal approach that had a recognizable sequence, but did not fully comply with OD 4.01.

#### The Role of Environmental Criteria.

74. The environmental assessment of Arun III Hydroelectric Project started by commissioning a number of descriptive studies by the King Mahendra Trust for Nature Conservation (KMTNC) that identified the main characteristics and risks in the valley, followed by project specific reports investigating probable direct impacts and appropriate mitigation measures and finally, with the analysis of indirect and induced changes and mechanisms for managing those processes. This sequence, however, was affected by considerable changes introduced during appraisal, including the splitting of the project, as well as changes in the alignment of the access road itself. Although the change in strategy and road alignment had been taken in 1992, by the end of 1994, the analysis of indirect and induced impacts was not yet complete, and significant work still needed to be performed to complete an environmental management plan, including training and monitoring requirements.

#### Panel of Experts.

75. At the time that HMG/N decided to change the road alignment to the valley, it sought the endorsement of the Panel of Experts for the project, which considered the issue at its September 30 - October 2, 1992 meeting. The PoE endorsed the decision in principle, but at the same time it made clear certain reservations about the decision. Two pertinent views are cited below.

2.16 - Regardless of which access route is adopted the recommendations and cost estimates of the King Mahendra Trust report on "Environmental Management and Sustainable Development in the Arun Basin" should be released to the public, reviewed, screened and prioritized to facilitate the development of an action plan for implementation.

2.17 - If the valley route is selected, recommendations and cost estimates of the aforementioned Arun Basin report and environmental information and clauses in the tender documents and Engineer's terms of reference should also be reviewed to determine if they are necessary and sufficient for the valley route, and amended as necessary; and NEA's "Environmental Assessment and Management Executive Summary" should be updated and amended to reflect the selection of the valley route and the amendments to these other documents, and to address the issue of impacts on families within the ROW of the hill route who have already been compensated for their land.

76. The qualified endorsement provided by the PoE pointed out specific disadvantages of the Valley alignment:

-increase in forested land in the ROW and possibly less disturbed and higher quality forest and protected wildlife habitat in the ROW: approximately 209 ha vs. 145 ha.

- close proximity to the Makalu - Barun Conservation Area.

- losses and uncertainties resulting from the circumstance that land compensation for the hill route is 94 percent completed.

- additional impacts associated with future construction of spur roads or other connections to hill villages that would have been connected to the hill route.

77. The PoE provided additional recommendations at its October 2, 1992 meeting:

1. The September 1992 Joint Venture EIA of the valley route needed a more detailed comparison of the impacts of the hill route and the valley route, including implications for associated changes in transmission line impacts, if any, and options and implications for families within the ROW of the hill route who have already received compensation.
2. Without an action plan in place, the PoE believed there would be no mechanism in place for controlling off-site impacts, especially encroachment on forests and wildlife, in the vicinity of access road and power stations, south and east of the Makalu-Barun Conservation area.

For carrying out such reviews, the PoE suggested that it would be desirable to engage individuals who were previously involved in the preparation of the King Mahendra Trust reports, the NEA Executive Summary and/or the Joint Venture environmental reports.

78. The PoE argued that attention should be paid to the specific warning that without such an action plan for implementation, there would be no mechanism for controlling off-site impacts such as those on forests and wildlife. In spite of this warning, the plan was not developed and even at the time of writing of this report (June 1995), the NEA has not produced the operational plans that would generate confidence in the implementation of these controls.

79. The October 1992 meeting of the PoE turned out to be its final meeting. Since it did not meet again, the PoE could not follow up on its specific recommendations. At the time that the Request for Inspection was received, Management supported the concept of a single panel of experts for the project. More recently, there has been a recognition by Management that a separate, specialized panel on social and environmental issues is needed. However, this panel is yet to be appointed.

80. The loss of time since the last meeting of the PoE has had a major impact on the project. Tasks laid out at the 1992 meeting received no follow-up. The original Regional

Action Plan received neither adequate attention nor serious technical review. The need for the second panel, devoted to environmental and social impacts, has been particularly clear where the specialized knowledge is needed. The new panel, for instance, has a special need for a person knowledgeable in forestry and biomass issues, in order to deal with the long-term deficit in woody biomass resources. It is only now becoming evident that the original scale of the mitigation measures proposed by the RAP is inadequate to deal with this increasing deficit.

81. In too many instances, progress has been stalled by the need to complete another, prior step. NEA's 1993 "Environmental Assessment and Management Executive Summary" could not be updated to reflect the changes in road alignment, as recommended by the PoE, since the additional KMTNC studies were not available until February 1995. As a result, the project went through appraisal and negotiation without fulfilling this suggestion from the PoE.

82. A specific example of time lost is the detailed comparison of alternative road alignments (Recommendation 1 of PoE #7). A table was included in the "Environmental Assessment and Management Executive Summary" (1993), but the detailed comparison of the alternative alignments was not actually completed until Management sent a mission to the Arun Valley in April, 1995.

#### Managing Direct Impacts.

83. The 1993 "Environmental Executive Summary" identifies the major direct and indirect impacts of the project. The major direct environmental impacts of the project are caused by the access road and they include a variety of direct actions that pose risks to biodiversity, cultural diversity and to the livelihood of some vulnerable groups in the Arun Valley.

84. Direct impacts are best mitigated by refinements to project design, controls and specific responsibilities laid on the contractors. To the extent possible, such impacts are prevented by avoiding specific areas such as towns or valuable forest patches. Experts indicate that they can be mitigated during planning by incorporating adequate specifications (such as spoils disposal conditions), during construction, by placing strict controls on the Contractor, and during operation by adjusting operating conditions through close monitoring. In principle direct impacts can be handled if sufficient preparatory work, adequate supervision and careful monitoring are available.

#### Institutional Capacity (Direct Impacts).

85. In this project, a critical role is played by the Arun Project Environmental Monitoring Unit (APEMU), to be established by the NEA and institutionalized to monitor the mitigative measures against direct negative environmental impacts expected to be brought about by project activities in the Arun Valley.

86. According to the NEA, the establishment and functioning of APEMU will begin with the issuance of the Letter of Acceptance (LoA) to the Civil Works Contractor for the

combined lot consisting of the access road, headrace tunnel, dam and desanding chamber and camp facilities. The APEMU will be institutionalized to work with the project Engineer with the purpose of promoting effective enforcement of environmental mitigation efforts. The objectives of the APEMU are summarized by HMG/N as follows:

- To monitor the implementation of environmental impact mitigation measures to be undertaken by Contractors during the construction phase, and to ensure compliance with contractual conditions in this regard.
- To monitor environmental conditions in the project area to determine whether further mitigation measures are necessary, and take necessary action.
- To ensure close coordination with agencies responsible for dealing with indirect impacts, and assist them where necessary and possible.

87. The APEMU will initially consist of a core group of eight experts with expertise on different environmentally related fields and would be headed by an expatriate environmental expert. The APEMU coordinator (an expatriate engineer) would coordinate inspectors and other supporting staff to field specialists and enforce compliance on the part of the Contractor. If disputes on necessary actions should arise, the APEMU coordinator will directly approach the CRE for immediate action. He/she would also handle all external communications to NGO's, the Regional Action Program (RAP) and supervise execution of the ACRP.

88. The rest of the specialist team would include: a Computer Engineer to deal with GIS and MIS systems, documentation, data base management, etc.; a Survey Cadastral Engineer to collect field survey data and convert them to cadastral maps in tasks related mainly to ACRP; a Civil Engineer with broad responsibilities including monitoring of contractor's compliance, vehicle emissions and dust level, spoils disposal practices, waste management in construction areas, etc.; a Sociologist or Socio-Economist. for monitoring activities during implementation of the ACRP and following up economic impacts on affected families; a Bio-engineer, Environmental Expert, and Forester as three specialists to monitor all environmental impacts of the project in particular river water quality vegetation, forest resources and wildlife.

89. The supporting staff consists almost exclusively of field inspectors. Since the road construction strategy envisions eight simultaneous construction work fronts, it is foreseen that at least eight field inspectors should be utilized.

90. The Inspection Panel found that independent experts placed significant emphasis on appropriate training for all APEMU personnel as essential for adequate preventive and mitigation efforts. From that point of view, this training and institutional strengthening



should take place well ahead of project implementation and construction schedule. Indeed, for such training to be effective, the NEA is already behind an ideal schedule for upgrading the staff of the APEMU. Since the APEMU will only be established after signing of the Contract, it is questionable whether even the hiring of personnel can take place with sufficient time for necessary preventive measures to be implemented.

91. According to the NEA, APEMU will be set up after the Order to Commence as part of the site supervision team and will stay in force until the end of all civil works 87 months later. Then it will be transformed into part of NEA's Maintenance and Operation Team. During project construction, the APEMU is planned as a unit separate from NEA's Environment Division. Technical assistance for strengthening of the Environment Division of the NEA is provided by the Asian Development Bank (ADB), not by IDA, and therefore the timing of the assistance is an important issue over which IDA has little control. Unless NEA's Environment Division is strengthened immediately, and APEMU is set up well ahead of construction, the adequacy of preventive measures and appropriate monitoring can be seriously questioned.

#### Managing Indirect Impacts.

92. The indirect impacts of the project stem primarily from changes introduced and induced by the access road in the Arun Valley. The 1993 "Environmental Executive Summary" recognizes that these impacts are "more important, more far reaching, and much more difficult to deal with."

93. The major indirect impacts of the project are related to changes in migration, deforestation, and the biomass balance of the Arun Valley, as well as modernization and changes in occupation and economic opportunities that may place specific groups at risk. Although both direct and indirect impacts were identified in general terms, the 1993 "Environmental Executive Summary" fails to identify specific impacts and preventive or corrective measures, since most of the report is based on the 13 volume KMTNC studies, commissioned for the original hill alignment scheduled to be followed under Cr.-2029.

94. The Arun III project developed an innovative approach to coping with impacts: firstly an "Environmental Mitigation Plan" (EMP) with impacts including land acquisition and compensation; and secondly a "Regional Action Program" (RAP) to address indirect impacts and induced effects. Together, according to Management, these plans constitute the "Environmental Management Plan" required by OD 4.01.

#### Institutional Capacity (Indirect Impacts) -- Regional Action Plan.

95. According to the EES, NEA is fully responsible for implementation of the Environmental Management Plan, but no specific mention is made as to the responsibility for RAP implementation. The EES States that: "Regional Action program will be implemented independently but in coordination with the EMP." (page 56). Thus, direct mitigation measures are to be undertaken by the NEA, while indirect and induced ones are to be undertaken by the National Planning Commission under the RAP. There is no single chain of command to oversee implementation.

96. It is worth noting that this appears to be one of the first times that the concept of a regional action program has been introduced in a World Bank project. It should also be recognized that since indirect impacts of the project are potentially more important, far reaching and difficult to deal with, much of the burden of compliance with OD 4.01 is placed under the RAP, which is yet to be completed in spite of the fact that it is described in the Staff Appraisal Report as being "integral" to the project. The Panel has continuing concerns regarding:

- The capability and institutional strength of NEA and other HMG/N agencies to coordinate and carry out the RAP, including monitoring.
- The scale of intervention and level of funding of the RAP.
- Issues dealing with donor coordination since the RAP is to be funded by other donors.

97. According to the 1993 "Environmental Executive Summary", the specific purposes of the RAP include:

- To strengthen the administration of settlements to assist them to cope with the rapid expansion caused by the project.
- To implement a priority program to strengthen Government institutions.
- To undertake specific women's programs, including education and training, establishment of cooperatives, support of micro-enterprises, health, education, and male sensitization.
- To implement a priority program to assist communities to service road construction in relation to demands for timber and firewood.
- To implement a program for preservation of sacred rites, monuments and folk heritage.
- To undertake conservation programs ranging from environmental education through crop genetic diversity and development of conservation areas.
- To carry out biodiversity and ecological research.
- To monitor nutritional levels and determine whether provision of subsidized rice to northern areas of the basin should be continued.
- To take advantage of new economic opportunities, including ecotourism.
- To support local administrative agencies in forming Community Development Committees.

#### Institutional Aspects

98. All the purposes listed in paragraph 97 above are important, but the Panel found few observers who thought resulting activities could be carried out simultaneously. Indeed, many of these purposes require pre-emptive actions ahead of the construction schedule. These activities have not been placed in clear priority order or translated into an

implementable plan, including resource requirements and specific personnel to carry them out.

99. A heavy burden has been placed on the Regional Action Plan to deal with a variety of complex issues such as those outlined above. This is a matter of serious concern due to the lack of experience on the part of IDA to oversee such a plan, as well as the widely recognized lack of institutional experience in the borrowing government. In addition, the RAP relies almost exclusively on resources provided by other donors. In effect, a major burden of compliance with IDA policies falls on project components not financed by IDA; unless closer coordination is achieved quickly, it is quite likely that critical preemptive and remedial measures of the RAP will fail to see the light of day. Therefore, questions related to donor coordination and collaboration take on even greater relevance. The Panel believes that these measures have not been given adequate attention on the part of Management and HMG/N.

100. HMG/N has designated the National Planning Commission as the lead agency to implement the RAP, which in its original form contained 21 specific recommendations and programs. These have not yet been re-evaluated on the basis of the KMTNC update studies completed in draft form in February 1995.

#### Jobs for Arun Residents

101. The greatest concern among the RAP issues for inhabitants of the region is availability of jobs. Local residents see two major employment impacts from the project: the jobs they hope to fill in actual construction during the next seven years, and the jobs likely to be generated indirectly through the existence of the road thereafter.

102. The only group to be offered some assistance in the construction process is the seriously-affected families, and the April 1995 Management team found that little had been done in that regard. In one sense, it is understandable, since major construction has not yet begun; at the same time, the Panel found virtually no understanding of the provision for "jobs and training" in the ACRP, and no planning underway to undertake the training so that SPAFs would be at the head of the queue. Loopholes were provided in contractor language that would easily allow for very little local hiring.

103. The issue has addressed as long ago as the 1991 KMTNC studies of the valley. The issue was raised again in the revised volumes submitted to the HMG/N in January 1995: "The overall situation is that, with an increasing population size, stagnancy in off farm employment generation and reduced portering services, the labor use situation in both [high-impact and low impact] areas continues to deteriorate. In a situation where a large project like Arun does not substantially change labor use situation in the project area, it is easy to imagine what the effects would be if migrant laborers were allowed to work in the construction sites. Besides, migrant laborers would add to food demand in an already food deficit area, which would likely cause other negative impacts. This is not to imply that laborers from adjoining districts should not be allowed to join the labor force. The intention is to demonstrate the labor surplus situation in the district and how employment

generation by a large project still does not appreciably improve the labor use situation in the project area. (Volume III, pp. 63-64.)

104. After the April 1995 mission, Management identified "training for construction-related activity" as an element of the Regional Action Plan that needed further elaboration. Earlier in the study process, a much more helpful formulation had been created that would begin to meet local needs. That approach created a system of priorities for employment, apparently already attempted successfully in Kali Ghandaki: unskilled labor would be reserved for (in priority order) SPAFs, PAFs, and other people from the Arun Valley. Only for more skilled jobs for which no Nepalis are available should foreigners be employed. Prior and on-the-job training is essential for all local people. All of these elements are stated or implied in the tender documents; the key will be the manner of implementation. Management appears to plan to give attention to the employment issue in both the ACRP and in the RAP; to be effective, it will need active oversight.

#### Forestry.

105. Sufficient attention has yet to be given to forest conservation and management, as well as efforts to prevent deforestation because the scale of the interventions originally proposed appears to be inadequate. All evidence leads towards a long-term tendency of a growing deficit of woody biomass in the Arun Valley watershed based on the results of the KMTNC update studies. This means that efforts to create and provide adequate legal standing to the community forestry groups becomes an even more critical component of the RAP. It also requires that preventive and pre-emptive measures in the forestry sector be carefully planned and precisely executed ahead of the road construction schedules.

106. The exact locations of community forestry user groups remain to be identified with respect to the road construction schedule in such a way that they start functioning ahead of project implementation. Since over 500 forestry user groups have been established in the Arun Valley, this task is critical and involves legal transfer of the land by HMG/N, setting up the management structure and technical assistance requirements for each group. These forestry users groups have been established with ODA technical assistance, which is scheduled to terminate in two years. The continuation of ODA technical assistance in the forest sector is an essential element to prevent long-term negative indirect impacts of the project.

#### Glacial Lake Outburst Flood (GLOF).

107. Risks associated with natural catastrophic events such as GLOFs and road wash outs due to monsoon rains were highlighted by the Panel in its earlier report to the Board. Management convened a Seminar of experts in April 1995 to analyze in detail the risks associated with GLOF. The general conclusions are that the risks are real and should be monitored closely and eventually mitigated through lake drainage, if it should become necessary. A team has been dispatched to Nepal in June 1995 to undertake the necessary field work to identify threatening glacial lakes, with a report due in the fall.

### Road Maintenance

108. High monsoon rains lead to devastating floods which constitute permanent risks and inevitably lead to road washouts of variable severity. This risk has not been analyzed in sufficient detail, perhaps because the precise valley alignment is not yet decided upon. The Panel found that appropriate contingencies had not been budgeted to deal with this persistent problem.

### Biodiversity -- Cloud Forests.

109. The Panel surveyed samples of the remaining Cloud Forests along the Hill route, and found that even in the most valuable areas along the two road alignments, the biodiversity had been severely damaged by intrusive cultivation. Nevertheless, the Panel was concerned that interest in and measures for protecting the remaining Cloud Forest areas had largely disappeared with the shift of the road route to the valley. This issue raises more generally the problem that a revised RAP, to reflect the shift in road alignment, may choose to ignore the continuing problems along the ridge route. Since the focus of the RAP is meant to be on indirect impacts in the region, not just along the road, the Cloud Forest is an example of an issue that may be unfortunately lost.

## 6. Indigenous People in the Arun Project Area

110. The most recent reviews of this issue and policy by Management have both clarified and obfuscated aspects of the question originally posed by the Requesters. Because the ethnic groups of the area being impacted by the Arun III project do not fit the classic expectations associated with OD 4.30, some observers have sought to dismiss the applicability of the OD. We are not dealing, after all, with the kind of isolated tribal group untouched by modernity that some would argue is foreseen in the OD. The position is unsustainable, however, since other observers on the ground and in Bank Management have recognized the larger purposes of the OD -- to ensure that groups in the population chronically vulnerable to damage from the development process, who can be identified by their ethnic affiliation, need special monitoring and programs. The fact that some of any given ethnic group have achieved some degree of integration into mainstream society does not discount the concerns of the majority of a given ethnic group, whether labeled "indigenous people" or not.

111. In this case, the Panel found in conversations among the people in the Arun Valley that some ethnic groups are clearly more prepared to deal with the changes in their lives than others. Concern was expressed particularly about the Rai communities that live north of Tumlingtar as likely to be least able to maintain their current social structures, and also most likely to face daunting pressure from outside the Valley and other Valley residents as economic opportunities explode with the construction process. Nevertheless, it cannot be generalized that all Rai people will need special assistance. Nor can it be

ruled out that non-Rai will suffer particular disadvantages in particular villages in the midst of rapid change.

112. As a result, the Panel found that a sensible approach had been discussed: to ensure that adequate anthropological surveys are undertaken well in advance of construction, with clear measures of well-being, and then close monitoring of their condition as the project progresses, and as an integral part of IDA oversight. Contingency plans for remediation in the context of the Regional Action Plan can be established to meet challenges as they emerge.

113. There are particular reasons in the Arun Valley to err on the side of caution with regard to vulnerable ethnic minorities. Virtually the entire population of the three districts touched by this project already live in a highly vulnerable status: for example, it is estimated that only one in ten farming families can support themselves from the land. Casual employment then becomes crucial to ensure people do not starve. Where there is a propensity for any disadvantage among particular groups of people, it will be crucial for a working monitoring system to pick up distress signals quickly, before communities disintegrate and there is additional flow of the homeless and impoverished into the cities. The background work of the King Mahendra Trust, particularly in its volume on "Sustainability and Economic Growth," makes clear that certain parts of the population will suffer declines in income with the opening of the road, through the short- and medium-term. OD 4.30 would require that the Bank ensure that ethnic communities not be generally harmed in this process. Management has indicated in the past that they expect the OD to be addressed directly when the Regional Action Plan is given operational details.

## 7. Findings

1. The findings below reflect the Panel's analysis of the foregoing Inspectors' report, its field inspection in Nepal (May 27-June 1, 1995), and in view of Management's initiative and pursuant to the terms of the Executive Directors Authorization of the Investigation (IDASecM95-36), these findings also take into account Management's proposed remedial measures in assessing compliance with the three policies. The initiative referred to means that after the investigation was authorized Management made a substantial effort to bring the project into compliance with the three policies. To this end an IDA staff mission visited Nepal in April 1995 ("April mission"). On May 23, Management sent the Panel a memorandum attaching proposed remedial measures based on the findings and recommendations of the April mission.

2. After the April mission Management pointed out in its transmittal memorandum to the Panel, that all the attached proposed remedial measures (Annex 2) would have to be satisfactory to IDA. In addition the memorandum stated that Management would communicate to HMG/N the criteria to be met for the measures to be satisfactory. In

terms of timing Management will require all such measures to be either completed or defined and initiated prior to Board presentation of the proposed project.

***Findings on Environmental Impact Assessment (OD 4.01)***

**3. Management's Proposals.** The recommended measures relate to the direct impacts of the proposed choice of road alignment. A detailed comparative analysis of the valley and hill access routes, recommended by the Panel of Experts in 1992, was prepared after the April 1995 mission. It confirms the proposal that the access road should be built along the valley alignment provided that the Environmental Impact Assessment takes into account the following:

- (a) Spoils disposal;
- (b) Impact on wildlife and aquatic Life:
  - (1) avoidance of Makalu-Barun Conservation Area or mitigatory and compensation measures;
  - (2) Sal Forest Patches: measures are to be included in the Regional Action Program discussed later in this report; and
  - (3) aquatic life; and
- (c) Impact of increased traffic on the market town of Hile.

**4. Panel of Experts ("PoE").** The establishment of a second separate specialized PoE consisting of social and environmental experts is now proposed but has still to be created and appointed.

- The Panel notes that the original PoE has not been convened since October 1992. Therefore it could not, as required, follow up on its recommendations. Mechanisms to ensure periodic PoE meetings and follow-up are therefore needed.

**5. Glacial Lake Outburst Flooding.** In addition to the measures proposed in Annex 2, Management has also addressed the problem of such flooding risks referred to in the Panel's preliminary report. In April Management convened a panel of experts which concluded that risks are real and that monitoring should commence immediately. HMG/N has arranged for financial assistance for a team of experts to carry out an investigation of the Barun glacier lakes starting towards the end of June.

**6. Road Maintenance.** During their field inspection, the Inspectors' verified monsoon flooding as a significant natural risk that requires attention. Uninterrupted motorized access is necessary to ensure that equipment can be brought in to the project site during construction. Without this, there is a high risk of considerable project delays and higher costs.

- The Panel finds that the choice of the valley route will require provision for appropriate funding of contingencies to cover maintenance in the event of road wash-outs resulting from river flooding due to monsoon rains.

*Findings on Involuntary Resettlement*  
(OD 4.30)

7. **Credit 2029-NEP** (approved by the Board in 1989). The April mission found there are families seriously affected by the access road project in Tumlingtar who sought rehabilitation but received no assistance. The mission also concluded that there may well be more families in the Basantapur area who have been similarly adversely affected.

8. The mission also noted that HMG/N had paid compensation to most of the 1,635 families whose land was acquired for the hill access road project. However the legal process of transfer of ownership had been completed for only 15-20 percent; of this percentage, the land of only 18 families was in fact physically possessed by HMG/N.

9. With respect to those who were displaced in 1989-90, Management recommends that HMG/N investigate the conditions of the families *whose land was actually physically possessed* and in accordance with provisions of the borrower's guidelines offer rehabilitation assistance.

- The Panel notes that, although necessary both for those displaced and for a large portion of the Arun Valley population, provision for access to jobs/training is not adequately addressed.
- The Inspectors found that the land of those who filed the Request for Inspection had been acquired but not physically possessed. They have been adversely affected by uncertainties over the last half decade as the result of the change in access road alignment. Their future is still uncertain. (See paragraph 52 of Annex 1) Approximately 1,400 other families are in a similar situation.
- The Panel finds that IDA failed to observe in substance the policy requirements for supervision of resettlement components and consequently failed to enforce covenants in the Credit Agreement.<sup>1</sup>

10. Management's proposed remedial measures with respect to land acquired but not possessed, as outlined in Annex 2, require that the borrower formulate a *time-bound* plan indicating which land is to be utilized for future road construction and which is to be returned, including measures for protecting the standard of living of those whose lands will be possessed and the procedures to enable original owners to regain their lands.

11. **Valley Route** (Proposed Credit). Management proposes an update of the Acquisition, Compensation and Rehabilitation Plan.

12. **Implementation of Resettlement Plans.** The Panel agrees with the 1991 consultant study of past experience in Nepal which concluded that more follow up and much more

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<sup>1</sup> See OD 4.30 paras 22 and 31. See also para 30, which requires that the resettlement plan and the borrower's obligation to carry it out be reflected in the legal documents. Other necessary resettlement-related actions must be covenanted.



emphasis must be placed on monitoring and evaluation of both the land acquisition process and implementation. It is worth noting that both the Operations Evaluation Department and regional reviews of the Bank's experience with resettlement stress the central importance of early attention to strengthening governmental capacity to manage such programs. The studies point out that monitoring by IDA has been chronically inadequate despite consistent findings that oversight must be exercised constantly during implementation and beyond.<sup>2</sup>

#### *Findings on Indigenous Peoples (OD 4.20)*

13. Management proposes that the three actions required by OD 4.20 with respect to indigenous people should be extended to all residents of the Arun Valley. These actions are (i) informed participation through public consultations, (ii) security over land tenure, and (iii) an action program with socially and culturally appropriate components. The "action program" means the Regional Action Program discussed further below.

14. The Inspectors found that people who qualify as "indigenous" under IDA's policy are scattered throughout the valley and live in conditions similar to those of non-indigenous people. Management's proposal that requirements of the policy be applied to all inhabitants is appropriate and should bring the project into substantial compliance with OD 4.20 if its implementation is subject to continuous monitoring and supervision.

#### *Findings on the Regional Action Program*

15. A significant number of actions required by OD 4.01 and OD 4.20 are to be included in the Regional Action Program ("RAP"). This is an innovative approach to an environmental action plan which has the potential to become either a model for future work or, if badly implemented, a serious weakness of the entire Arun III project.

16. Described in the Staff Appraisal Report of August 1994 as being "integral" to the project, the RAP has nevertheless yet to be completed. It would be the main mechanism for dealing with indirect environmental and social impacts — an extremely ambitious undertaking which in its original form contained 21 specific recommendations and programs to deal with a variety of complex issues.

17. **Forestry.** Effective forestry management is expected to mitigate the increasing biomass deficit.

- The Panel notes that preliminary actions to address this problem need to be completed. Measures to grant security of land tenure to forest user groups are now proposed. First, maps showing the boundaries existing forests as well as those planned to be managed by forest user groups have yet to be prepared. Second, as of the date of writing, Management is still waiting for the planned review by the Bank's Legal Department of Forestry By-Laws. Depending on the outcome, Management intends, if necessary, to propose further remedial measures. The Panel also finds that

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<sup>2</sup> See, for example, OED Report No. 12142, "Early Experience with Involuntary Resettlement: Overview," June 30, 1993.

continued technical assistance to be funded by donors other than IDA is critical to this component.

18. **Protection of the Remaining Cloud Forest.** Only patches of cloud forest remain and are located along the now abandoned hill route.

- The Panel finds that appropriate mechanisms for their protection have not been included under the RAP.

19. **Donor Support and Coordination.** Funding of the RAP is to be provided by major bilateral donors who must be committed to continuing support throughout the life of the project. The RAP involves many different programs in many different areas, implementation by different executing agencies, and funding by a number of different donors.

- The Panel found inadequate capacity for sustained coordination of all these different aspects

20. **Institutional Aspects.** Management requires that the borrower complete a redesigned and expanded RAP<sup>3</sup> prior to Board presentation. (Annex 2 at p. 3). The Panel notes that:

- Since it is the first time such a regional action program has been designed, those involved in designing the original RAP need to continue their work to ensure that an institutional memory is established in order to inter-link in the future, all the different actions.
- To implement *pre-emptive* environmental and social measures institutional capacity needs to be strengthened *now*.
- Responsibility for implementation appears to be fragmented. Direct mitigation measures are to be taken by one executing agency while indirect and induced ones are to be taken by another. The design does not yet provide for a single chain of command or integrated organizational structure in the Arun Valley to oversee implementation.

21. Given the complexity, scale and scope of proposed developmental interventions in relation to the existing institutional capacity in Nepal, the Panel is doubtful that the project's mitigatory environmental and social measures can be implemented within the time frame proposed by IDA.

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<sup>3</sup> The original studies conducted by the King Mahendra Trust ("KMTNC")—a local NGO—which provide an excellent basis for the RAP, were completed in 1991 based on the hill route alignment. Additional and updated KMTNC studies were completed recently in February 1995. Due to the change in road alignment in 1992 the borrower has to redesign rather than update the RAP.

- The Panel finds that the lack of institutional experience will necessitate implementation of a massive institutional capacity building plan and identification of further resources to fund it, as well as intensive IDA staff supervision throughout project execution.
- In relation to environmental measures in particular, the Panel notes that OED studies indicate that projects often suffer, or take much more time and funding than anticipated, because of an underestimation of the effort needed for building adequate institutional capacity as well as from a lack of constant supervision.<sup>4</sup>

### Documents

Attached to this Report is a "List of Documents Archived at the Office of the Inspection Panel." It lists those documents numbered and deposited in the Panel's archives. These were officially transmitted to the Panel at its request, or offered to it, by Task Managers and other staff.

In addition to complete access to IDA files the Inspectors had access to, or sought out, a wealth of additional published and unpublished material from both within and outside the Bank.

The Panel wishes to thank relevant staff for their untiring cooperation and large amount of time and effort they spent in providing the Panel with documents.

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<sup>4</sup> See, for example, OED Report No. 12403, "Annual Review of Evaluation Results 1992," October 13, 1993.



List of Documents Archived at the Office of The Inspection Panel

Document Type	Author	Date	OB #	Description/Subject
Memorandum & Recommendation of President to the EDs	IDA	8/25/94	1	Re: Proposed Credit for SDR 95.5 to Nepal for Arun III: 6P-43M1-NEP
Staff Appraisal Report	SAS1	5/23/94	1(8)	Report No. 12643-NEP
Draft Development Credit Agreement (Arun III)	IDA	8/25/94	1(9)	Between HMG/N & IDA: WP-329-A/NE
Draft Project Agreement (Arun III)	IDA	8/25/94	1(10)	Between IDA & NEA: WP-329-B/NE
Draft Agreement Amending Dev. Credit Agreement	IDA	8/25/94	1(11)	Arun III Access Road Project - between HMG/N & IDA: WP-329-C/eq
Draft Project Agreement (Arun III Access Road Project)	IDA	8/25/94	1(12)	Between IDA & NEA Credit No. 2029-NEP: WP-329-D/NE
Environmental Management Plan	NEA	May-93	2	Delineating Responsibilities, Kathmandu, Nepal
Project Brief	NEA	Feb-94	2	Social Reference to Environmental Management, Kathmandu, Nepal
Environmental Study	WB: UNDP: HMG/N	Oct-91	3	Vol. 1-13
Least Cost Generation & Expansion Plan (LCGEP)	NEA	Apr-87	4(a)	Report No. PD/3/P/431124/3
Updates	NEA	Nov-90	4(b)	Final Report, Vol. 1: Main Report
Analysis of Options for the Nepal Electrical Generating System	ANL	May-96	5(a)	Draft for Review
Analysis of Options for the Nepal Electrical Generating System	ANL	7/13/94	5(b)	Final version - Proposal P-86052 (Rev. 4)
Feasibility Study-Kat Gandaki-2 Hydr. Project	NEA	Oct-85	6(a)	Final Report Vol. 1, Main Report
Soat Gandaki Hydroelectric Dev. Project	JCA	Jan-83	6(b)	Vol. 1, Main Report
Feasibility Study-Burni Gandaki Hydr. Project	HMG/N Min of WR	Apr-84	6(c)	Vol. 1, Main Report
Feasibility Study-Lower Arun Hydr. Project	HMG/N, NEA	Jul-90	6(d)	Vol. 1, Main Report
Feasibility Study-Arun-3 Hydr. Dev. Project	JCA	Jun-87	6(e)	Vol. 1, Main Report & Vol. 2, Access Road
Detailed Feasibility Study-Kat Gandaki "A" Hydr. Project	HMG/N, NEA, UNDP, UNTCO		6(f)	Draft Final Report, Vol. 1, Main Report (NEP/96/014)
Feasibility Study-Third Kulekhani Hydr. Project	NEA	May-98	6(g)	Main Report
Feasibility Study, Upper Arun Hydr. Project, Phase II	HMG/N, NEA, UNDP, WB	Dec-91	6(h)	Final Report, Vol. 1: Main Text
Note: Changpus Basin Impgn Project-Roaman Issue	NEA	Jul-94	7	Note on Roaman issues
Note: Preliminary Report-Planning Ecol. Dev. of the Changpus Basin	WB	Oct-94	7	Note
Elms - Re: Changpus Impgn Project	Staff	10/24-11/4/94	7	Exchange of Elms between the EDs' office & O'Leary SA1E1
Environmental Impact Assessment for Arun Access Road-Valley Rt.	NEA	See-92	8	Vol. 1/2/2: Main Report
Land Acquisition Act, 2034	HMG/N	1977	9	Engan transaction
Environmental Mitigation Plan	NEA (HMG/G undertaking)	Nov-93	10	Arun III, Updated Plan
Arun III, Detailed Engineering, Project Formulation Report I	NEA (HMG/G undertaking)	May-89	11(a)	Vol. 1: Main Report
Arun III, Detailed Engineering, Project Formulation Report I	NEA (HMG/G undertaking)	May-89	11(b)	Vol. 2: Annexes
Arun III, Detailed Engineering, Project Formulation Report I	NEA (HMG/G undertaking)	Jun-90	11(c)	Supplementary Report on Hydrology & Sedimentation
Nepal Policy Framework Paper, 1994-28	IBRD	3/30/94	12	Board Document Ref. Sack/94-124
Project Performance Audit Report-Kulekhani Hydr. Project	WB	5/8/98	13	Re: Credits 900-NEP & 900-1-NEP
Feasibility Study-Upper Arun Hydr. Project Phase II	MAI Engineers, Inc.	Dec-91	14	Final Report, Chapter 11-Environmental Impact Assessment Studies
Agreed Minutes of Negotiations-Arun III	HMG/N, NEA, OA	6/13-21/94	15	Between the Kingdom of Nepal & NEA re: Arun III Hydr. Project
Nepal Proposed Investment in Hermal Power Ltd.	IFC	6/6/94	16	Report No. IFC/94-134
Staff Appraisal Report-Nepal, Manangadi Hydr. Power Project	WB	5/1/84	17(a)	Report No. 4422a-NEP
Supervision Reports-Back-to-the-Office Reports	WB		17(b)	Re: Nepal Credit 1475-Nep & Cr 1482-Nep
Country Assistance Strategy Paper-Nepal	WB		18	Extract from Memo of the President Re: Proposed Credit of SDR 18.4m
Arun III, Detailed Engineering Services	NEA, et al	Jul-92	19	Detailed Engineering Services, Arun Access Road, River Rt. Algn. Study
Accumulation Compensation & Rehabilitation Plan	NEA, et al	6/21/94	20	Action Plan (Updated) & Appendices A, B, C, & D
ECON Report, Economic Analysis of Projects	WB	1992	21	Discussion Draft (Ref. #J.M. Management's Response)
World Bank Policy Paper	WB	1993	22(a)	The WB's Role in the Electric Power Sector
World Bank Policy Paper	WB	1993	22(b)	Energy Efficiency & Conservation in the Developing World - Ref. #WB14
Attachment to May 31, 1994 to HMG/N	Staff	1994	23	List of all the Reports Related to Arun III NEP (Ref. #Pnl13)
Attachment to Nov 11, 1994 letter to Staff Member	NEA	1994	24	Distribution of Arun III Project Related Docs. in Nepal Language to Gen. Public
Appendum to June 1990 Environ. & Socio-Economic Impact Study	NEP, S.W. Kishorenc, Inc.	Jan-92	25	Vol. 2, Arun Access Road-Summary of Environ. Inf., Final Report (Ref. #Pnl18)
Appendum to June 1990 Environ. & Socio-Economic Impact Study	NEP, S.W. Kishorenc, Inc.	Jan-92	26	Vol. 3, Environ. Impact Assess of the Transmission Line Final Report (Ref. #Pnl2)
Final of Experts Reports	HMG/N, NEA	1988-92	27	Reports No. 1-7 (Ref. #Pnl25)
Fee Re: Arun III Geospatial Survey	Nepal Res. Fee	11/21/94	28	To: Staff (Ref. #Pnl55)
Fee: Re: set of documents provided by IFC in Nepal	Staff	7/15/94	29	To: G. Swales, ACG re: Docs provided by IFC set up in Nepal
Letter: List of documents to be made available	Staff	10/7/94	30	To: G. Swales, ACG re: List of docs. available at the Arun III Information Center
Staff Appraisal Report - Nepal	Asst - Country Dept. 1	5/12/89	31(a)	Nepal, Arun III Access Road Project, (Report No. 7481-NEP)
Memorandum and Recommendation of the President	IDA	May-99	31(b)	Proposed Credit to HMG/N re: Arun Access Road Project Report No. P-4910
Memorandum to the Board	SECVP, IDA	May-99	31(b)	Re: Nepal, Arun III Access Road Project Ref. IDA/R99-61
Development Credit Agreement - Arun III Access Road Project	IDA	9/8/99	31(c)	Credit Number 2029-NEP
Report: Nepal Fiscal Restructuring & Public Resource Management	WB	3/17/94	32	Vol. 1 & 2: Report No. 12231-NEP (Ref. Sack/94-301)
Environmental Assessment and Management, Executive Summary	NEA (HMG/N undertaking)	May-93	33	Re: Arun III Hydroelectric Project
Letter: Re: Roaman Rights	China Ambassador to Nepal	1/1/94	34	Re: His objection to HMG/N re: Arun III attachments
Tender Documents - Arun III Hydroelectric Project	NEA (HMG/N undertaking)		35	Vol. A-C
Article: WRI Cases in Development, "Handing Over"	WRI & LEADERS		36	An Analysis of the Legal and Policy Framework of Community Forestry in Nepal
Terms of Reference	WB		37	For Updating of Regional Action Plan
Feasibility Study	JCA	Mar-87	38	Draft Final Report Hydroelectric Dev. Project, Vol. 1: Main Report (1-7)
Feasibility Study	JCA	Mar-87	39	Draft Final Report Hydroelectric Dev. Project, Vol. 1: Main Report (8-13)
Feasibility Study	JCA	Jun-87	39	Final Report Hydroelectric Dev. Project, Vol. 2: Access Road
M&NP Management Plan	HMG/N-NPWC & WCI	Nov-90	40	WB Doc #75.384
Scientific Research Component	HMG/N-NPWC & WCI	Nov-90	41	WB Doc #75.384
Community Resource Management Control	HMG/N-NPWC & WCI	Nov-90	42	WB Doc #75.384
Tourism Management Component	HMG/N-NPWC & WCI	Nov-90	43	WB Doc #75.384
Park Management Component	HMG/N-NPWC & WCI	Nov-90	44	WB Doc #75.384
Working Paper Publication Series	WBSP	Apr-80	45	12 Reports WB Doc. #75.354-56, 357-58, 360, 363-6, 368, 68, 70, 71, 74
ICIMOD Occasional Paper No. 9	ICIMOD	Dec-84	46	Mountain Environmental Management in the Arun River Basin of Nepal
The National Conservation Strategy for Nepal	HMG/N & IJCN	Dec-87	47	Building on Success
Feasibility Study	EARL	Nov-88	48	A Study of Feasible Policies, Institutions & Investment Activities in Nepal
Baseline Environmental Impacts Study	ICMTHC	Jan-88	49	Vol. 2: Natural Resources (Preliminary Draft)
Baseline Environmental Impacts Study	ICMTHC	Jan-88	50	Vol. 3: Sustainability and Economic Growth (Preliminary Draft)
Baseline Environmental Impacts Study	ICMTHC	Jan-88	51	Vol. 4: Social and Institutional Component (Preliminary Draft)
Baseline Environmental Impacts Study	ICMTHC	Jan-88	52	Vol. 5: Socio-economy (Preliminary Draft)
Baseline Environmental Impacts Study	ICMTHC	Jan-88	53	Vol. 6: Settlement Guidelines (Preliminary Draft)
Annual Report: The Manang-Banun Conservation Project	HMG/N Dep. of Parks & Wild	1993	54	Report written "Arun River Basin"
TOR	Staff	4/27/98	56(a)	May, 1998 Mission
TOR	Staff	4/27/98	56(b)	May, 1998 Mission w/Postapproval
Adv-Memors	AE11E	May-99	56(c)	May, 1998 Mission
TOR	Staff	10/27/99	57(a)	November 1998 Mission
Back to the Office Report	Staff	2/1/00	57(b)	Re: November 1998 Mission

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TOR - Consultant	Staff	07/80	58 (a)	July 1980 Mission
Back-to-the-Office Report	Staff	07/80	58 (b)	Rec: July 1980 Mission
TOR - Consultant	Staff	11/80	59 (a)	November-December 1980 Mission
Submission Report	Staff	01/81	59 (b)	Rec: November-December 1980 Mission
Auto-Memora	AS1E	Dec-80	59 (c)	Rec: November-December 1980 Mission (CR, 1902-NEPI)
Back-to-the-Office Report	Staff	01/81	59 (d)	Rec: November-December 1980 Mission
TOR	Staff	01/81	59 (e)	March, 1981 Mission
Information Summary	AS1E	01/81	60 (a)	Rec: March, 1981 Mission - part of a mission report
Auto-Memora	AS1E	Mar-81	60 (b)	Rec: March, 1981 Mission
Formal Act, 1983	HAQNH/USAID	Jan-83	61	Unofficial English Translation
Auto-Memora	AS1E	Aug-81	62	Rec: July-August, 1981 Mission
Auto-Memora	AS1E	Jan-83	63	Rec: May-June, 1983 Mission
Back-to-the-Office Report	Staff	Mar-83	64	Rec: September-October, 1983 Mission w/Memorandum of Understanding
Auto-Memora	AS1E	Sep-84	65	Rec: September, 1984 Mission
TOR	SA2CI	02/85	66 (a)	Rec: April, 1985 LSAID Mission
Memorandum: Anun at Environmental & Social Review Mission	SA2EG	02/85	66 (b)	Rec: April, 1985 Mission
Memorandum: Nepal Memo on Consistency of the Project	Legal Department	07/86	67	Rec: consistency of Bank policies & procedures & additional materials
Article: World Bank and Indigenous Peoples	S. Davis, WB		68	
Article: Analysis of Options for the Nepal Electric Generating System	USAID	01/88	69	Analysis of Options
Preliminary Report: Update of Env. Assessments and Comparison of Risk	Staff	Aprl, 1988	70	Nepal, Anun Valley - Update of Environmental Assessments & Comparison of Ridge & Valley Access Road Alignments
Preliminary Report: Grid	Staff	Aprl, 1988	70	
Living Standards Survey	Staff		71	Grid
Back-to-the-Office Report			72	Rec: Mission
Agenda - GLOF Paris Meeting		April 27, 1988	73	
GLOF Paris Meeting, April 27-28, 1988		April, 1988	74	Agenda with List of Participants
Report: Proposal for Strengthening NEA/Environment Unit	NEA (HAQNH undertaking)	March, 1983	75	
Report: Anun Project Environmental Monitoring Unit	NEA (HAQNH undertaking)	April, 1985	76	
Back-to-the-Office Report	Staff	06/88	77	Rec: April-May Mission 1988
GLOF - Field Survey	NEA	07/08	78	Status of Banun Glacier Lakes Investigation Study
Book: Natural Hazards and Man Made Impacts in the Nepal Himalaya	Dr. C.J. Sharma	07/08	79	Background material
Book: Engineering Challenges in Nepal Himalaya	Chandra Sharma	07/08	80	Background material

May 23, 1995

## NEPAL - PROPOSED ARUN III HYDRO ELECTRIC PROJECT SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER ACTIONS

### Investigation Area 1: Environmental Impact Assessment

- The access road to the Arun III dam and hydro project sites should be built along the valley alignment, provided the recommendations in the areas below are implemented to the satisfaction of IDA.
- The following aspects still need to be taken into account in the Environmental Impact Assessment.

#### (a) Spoils disposal.

- GON/NEA to identify alternative options for all spoil disposal, estimate costs and impacts of these alternatives, and implement these where economically feasible to avoid river disposal;
- GON/NEA to calculate the likely cost of this change of policy and inform IDA whether it will be implemented through up-front contract modifications, or through the existing contract supervision and unit price framework.

Required as soon as possible, at the latest for Board Presentation.

#### (b) Impact on the Wildlife and Aquatic Life.

- Impact on wildlife and aquatic life estimated to be modest. Impact on fisheries resources still worth mitigating.

##### (b.1) Makalu-Barun Conservation Area (MBCA).

- GON/NEA to demonstrate, in a manner satisfactory to IDA, that building this road portion on the western bank is unavoidable;
- GON/NEA and MBCA to agree on mitigatory measures and compensation, satisfactory to IDA and taking into account national legislation.

Required for Board Presentation.

##### (b.2) Sal Forest Patches.

- GON/NEA to demonstrate, in a manner satisfactory to IDA, that road portions cannot be located on adjacent non-forested ridges;
- Adequate compensation, conservation measures and forest management plans to be included in the RAP, satisfactory to IDA and taking into account national legislation.

Required for Board Presentation.

**(b.3) Aquatic Life.**

- Establishment of a small fish hatchery to be included in the Regional Action Plan (RAP).

Required for Board Presentation.

**(c) Impact of Increased Traffic on the Market Town of Hile.**

- GON/NEA to devise, in consultations with town residents, an appropriate solution, including a traffic management plan.

Required for Board Presentation.

Panel of Experts.

- GON/NEA to appoint two Panels of Experts.

Required for Board Presentation.

Investigation Area 2: Involuntary Resettlement - Acquisition, Compensation, and Rehabilitation IssuesLand Acquired along the Hill Route.

- GON/NEA to investigate the situations of the families affected by the Government possession of land in Tumlingtar and in Basantapur (for construction of a road portion from this town).

Required for Board Presentation.

- GON to formulate a time-bound plan indicating the land to be returned to original owners and to be utilized for future road construction, including measures for protecting the standards of living of those whose lands will be possessed and the procedures to enable original owners to regain their lands.

Required for Board Presentation.

Acquisition, Compensation, and Rehabilitation Plan (ACRP) for the Valley Route.

- Because of unforeseen delay in implementation of the project, the ACRP for the valley route is in need of updating, to take into account changes in baseline data, cost and budget.
- As conceived in the ACRP the above updating would involve clarifications on certain related matters.

Required for Board Presentation.



### Investigation Area 3: Actions Involving Local People

#### (i) Informed Participation Through Public Consultations.

- Field investigations found that communities consulted were fully aware of the Project and were looking forward to its implementation. Therefore, it is concluded that no new consultations would be useful until a decision has been made on project financing.

#### (ii) Security Over Land Tenure.

- GON/NEA to prepare a map showing the boundaries of forests managed by the forest user groups active or being established along the valley route.

Required as soon as possible, at the latest for Board Presentation.<sup>1</sup>

#### (iii) An Action Program with Socially and Culturally Appropriate Components.

- Addressed through the proposed Regional Action Program (RAP):
  - GON to revise and expand the RAP, including:
    - ... an action program including detailed description, budget, time table and institutional arrangements for the implementation of the preemptive measures (in particular continuation of establishment of forest user groups along the valley route alignment),
    - ... mechanisms for coordination with Donors and for participation by various local institutions active in the Arun Valley, for annual revisions, updates and extensions,
    - ... mechanisms for implementing and supervision of the programs under the RAP, and,
    - ... procedures for monitoring.

Required for Board Presentation.

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<sup>1</sup> Further recommendations may be made following the review by the Legal Department of the Forestry Bylaws (April 1995) to determine whether user group security of tenure over forest resources is assured (the review by the Legal Department would not take more than a few weeks). We are still awaiting English copy of the Bylaws and annexes.



May 23, 1995

NEPAL - PROPOSED ARUN III HYDRO ELECTRIC PROJECT  
NOTE ON THE CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER ACTIONS

General

Environmental Situation in the Lower and Middle Arun Valleys.

*Conclusion:* The lower and middle Arun valleys are far from pristine and ecosystems are in decline. Very little or no pristine forests are left in the Arun valley. With the exception of relatively small areas of "cloud forest" along the hill (ridge) access route alignment, forests are heavily exploited for fodder, fuelwood, shifting cultivation, land clearing for agriculture and grazing.

Environmental Impact of the Project.

*Conclusion:* If properly managed, the environmental impacts of the proposed Arun III Hydro Electric Project (HEP) development can be minimized and/or adequately compensated for, and the project has the potential to bring significant longer-run social and economic benefits to its area of influence, as well as energy benefits to the country as a whole.

We will inform the Government of Nepal (GON) that IDA would need to be satisfied with GON's actions on all the recommendations<sup>1</sup> given below, before presenting the proposed IDA Credit to the Board.

Investigation Area 1: Environmental Impact Assessment

Comparison Between the Valley and Hill (Ridge) Access Road Alignments.

*Findings:* The two access road alignments contrast significantly in environmental terms (Annex 1). The valley route would create fewer adverse environmental and social impacts than the hill route. In addition to being considerably shorter, the valley route would adversely affect fewer people in terms of direct dislocation and the taking of agricultural land. It would also pass through Sal forests which contain relatively low bio-diversity and are well represented elsewhere in the country. At the same time, being located close to the Arun River, the valley route would provide improved access to a larger number of people in three districts (Dhankuta, Sanskhuwasaba, and Bhojpur), while the hill route would benefit mainly residents of the first two districts.

*Recommendation 1:* The access road to the Arun III dam and hydro project sites should be built along the valley alignment, provided the recommendations in the areas below are implemented to the satisfaction of IDA.

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<sup>1</sup> Actions with respect to recommendations for "spoils disposal" and "map showing forests managed by forest user groups in the valley route" are required as soon as possible, at the latest for Board Presentation.

**Recommendation 2:** The following aspects still need to be taken into account in the Environmental Impact Assessment.

Areas to be Addressed. Constructing the valley alignment would nevertheless involve some impacts in the following areas that need to be addressed:

- (a) Spoils disposal. *Findings:* IDA is concerned with the policy of disposing of road construction spoils in the river as a matter of principle and precedent. It recognizes that the approach, of placing surplus soil and rock materials on selected river flats to be swept away by high river flows, has arisen from the particular site conditions of steep valleys with few environmentally stable alternative disposal sites, a river sediment load 100 times as large as the disposed material, and a lack of road access during construction. Nevertheless this is not common or desirable international practice, and alternatives should be fully considered.

*Recommendations:* GON/NEA should: (i) identify alternative options for all spoil disposal, estimate costs and impacts of these alternatives, and implement these where economically feasible to avoid river disposal; and, (ii) calculate the likely cost of this change of policy and inform IDA whether it will be implemented through up-front contract modifications, or through the existing contract supervision and unit price framework.

- (b) Impact on the Wildlife and Aquatic Life. *Findings:* The impact of the project on the wildlife and aquatic life is expected to be modest.
- (b.1) Impact on Aquatic Life. *Findings:* Impact on the fisheries resources would be worth mitigating.

*Recommendation:* Establishment of a small fish hatchery should be included in the Regional Action Plan (RAP).

- (b.2) Makalu-Barun Conservation Area (MBCA). *Findings:* The valley alignment cuts through this area along seven km between the powerhouse and the dam site on the western bank of the Arun River.

*Recommendations:* (i) GON/NEA should demonstrate, in a manner satisfactory to IDA, that building this road portion on the western bank is unavoidable due to inappropriate geological conditions in the eastern bank; and, (ii) GON/NEA and MBCA should design and agree on adequate mitigatory measures and compensation, satisfactory to IDA and taking into account national legislation.

- (b.3) Sal Forest Patches. *Findings:* Between Tumlingtar and the dam site, 5-6 km of the valley route passes through the Satighat-Heluwabesi riverine Sal forests of which the habitat is becoming scarce in eastern Nepal.

*Recommendations:* (i) GON/NEA should demonstrate, in a manner satisfactory to IDA, that the road portions cannot be located on adjacent non-forested ridges (due to inappropriate geological conditions or being too costly); and, (ii) adequate compensation, conservation measures and forest management plans, should be included in the RAP satisfactory to IDA and taking into account national legislation.

- (c) Impact of Increased Traffic on the Market Town of Hile. *Findings:* The access road begins almost at the middle point of the market street in Hile. The existing road in Hile is only 4 meters wide and the heavy traffic might be difficult.

*Recommendation:* GON/NEA, in consultation with town residents should address the impact and devise an appropriate solution, including at least a traffic management plan.

#### Panel of Experts

*Finding:* In June 1994 negotiations, GON and IDA agreed on one Panel of Experts, whose membership and expertise could be expanded when and if needed.

*Recommendation:* GON and NEA should appoint two Panels of Experts -- one for the review of the engineering (in particular of the hydro power plant component) and the other for the review of the environmental and socio-economic impacts of the project (in particular of the access road).

#### Investigation Area 2: Involuntary Resettlement - Acquisition, Compensation, and Rehabilitation Issues

##### Land Acquired along the Hill Route.

*Finding 1:* Data about acquisition, compensation, and rehabilitation along the hill route is given in Annex 2. As of April 12, 1995, NEA had taken physical and legal possession of only 4.77 ha of land for which it has paid compensation. The total number of land owners affected by these acquisitions were 18. Interviews with 11 families affected by loss of land in Tumlingtar revealed that at least three of these families consider themselves to be Seriously Project Affected Families. Although the families have sought rehabilitation, no assistance has been provided to them. There may be similar claims by families affected by acquisition of land in the Basantapur area as well, where Basantapur Village Development Committee (VDC) has used the land paid for by NEA to construct a road stretching for about 2-3 km from Basantapur.

*Recommendation 1:* GON should have NEA investigate the conditions of the families affected by the possession of the 4.77 hectares of land and following the provisions of its guidelines offer rehabilitation assistance to the entitled families. This work should include the families affected by the land used to build the road portion from Basantapur.

*Finding 2:* On April 5, 1995, the Minister of Finance informed IDA that "the land acquired in the hill route will be returned to the original landowners as per Clause 34 of the Land Acquisition Act 2034, if no public construction is carried out on these lands."

**Recommendation 2:** GON should formulate a time-bound plan indicating the amounts of land to be returned to original owners and to be utilized for future road construction. The plan should describe measures for protecting the standards of living of those whose lands will be possessed as well as the procedures to enable original owners to regain their lands.

#### Acquisition, Compensation, and Rehabilitation Plan (ACRP) for the Valley Route.

**Finding 1:** Because of unforeseen delay in the implementation of the project, the ACRP for the valley route is need of updating.

**Recommendation 1:** GON should update the ACRP taking into account changes in the number of adversely affected persons, cost estimates and budget. As conceived in the ACRP<sup>2</sup>, this updating should involve clarifications in implementation timetable (linking with construction of road and power project); leasing arrangements; mechanisms for land for land option; arrangements for resettlement of people of Amrang; organizational responsibility; and procedures for compensating forest user groups, the MBCA, and villagers dependent on forest not yet transferred to forest user groups.

**Finding 2:** In addition to 430.4 ha of land which will be acquired for the hydro power sites, access road and transmission lines, about 491 ha of land are to be leased.

**Recommendation 2:** GON should clarify the mechanisms for leasing of land. As part of this process, the mechanisms for executing the leases and setting up lease terms should be defined indicating the rights and obligations of each of the parties to the contract.

#### Investigation Area 3: Actions Involving Local People

The three actions required by OD 4.20 with respect to indigenous people should be extended to all residents of the Arun Valley. These actions are: (i) informed participation through public consultations; (ii) security over land tenure; and, (iii) an action program with socially and culturally appropriate components.

##### (i) Informed Participation Through Public Consultations.

**Findings:** Field investigations found that communities consulted were fully aware of the Project and were looking forward to its implementation. Therefore, it is concluded that no new consultations would be useful until a decision has been made on project financing.

**Recommendation:** When a decision to begin construction is taken, NEA should provide the following information to local people: (a) established road alignment, plans for feeder roads and opportunities for employment on road construction/ maintenance; (b) institutional arrangements, including HMG/N,

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<sup>2</sup> The ACRP dated June 21, 1994, provided, among others, for preparation of full implementation schedule for activities to be carried out in the first two years within three months from the date of the order to commence construction.

donor, implementing agency, VDC and user group roles; and, (c) whether or not, at what cost, where and when electricity will come to the valley. Further, NEA should increase efforts to reach marginal groups, prepare pamphlets in local languages and consider information sharing formats that are less technical and literacy-based.

(ii) Security Over Land Tenure.

*Findings:* The cadastral maps prepared in Dhankuta district 15 years ago and recently completed in Sankhuwasaba district are intended to register settlements and individual agricultural land title. Thus, mechanisms are in place whereby land titles can be adjudicated and established. However, forest land, including forest managed by community forest user groups, as well as national parks (e.g. Makalu-Barun National Park and Conservation Area) are excluded from the cadastral map. The cadastre, therefore does not provide individuals or communities with security of title over forest land. Protection and management of forests is laid out in the 1993 Forest Act. Implementation of the Act has only recently been established through the Community Forest Bylaws, dated April 1995.

*Recommendation:* GON should ask NEA and its Consultants to prepare a map showing the boundaries of forests managed by the various forest user groups active or being established along the valley route. *Further recommendations* may be made following the review by the Legal Department of the said Bylaws whether security of tenure over forest resources is assured<sup>3</sup>

(iii) An Action Program with Socially and Culturally Appropriate Components.

The various components of an action program should be socially and culturally appropriate for all the people living in the areas affected by the project. This requirement would be addressed through the proposed Regional Action Program (RAP).

Regional Action Program (RAP):

*Findings:* Additional effort is required to bring the RAP to an acceptable level of preparation. The RAP is of strategic importance, especially in terms of the preemptive components, the program needs to be clearly defined and operational well before road construction begins.

*Recommendations:* GON should revise and expand the RAP, in close coordination with the Donors active in the Area and with the participation of the various local institutions existing and active in the Arun Valley. The scope of the revised RAP is given in Annex 3.

Institutional Capability:

*Finding 1:* The community institutions operating in the valley are diverse and viable. Such groups generally have a good understanding of objectives and are active, illustrating the proactive characteristics of valley residents who are keen to take advantage of any opportunities available. The focus of these groups which have been traditionally operating in the Arun Valley for many years, is also

<sup>3</sup> The review by the Legal Department would not take more than a few weeks. We are still awaiting English copy of the Bylaws and annexes.

appropriate - forest users groups, women-in-development groups, groups active in agricultural production, irrigation associations. Village development activities are now being underpinned by financial resources following the Decentralization Act which at present provides NRs. 300,000 from the central government budget directly to each Village Development Community (VDC), bypassing the district bureaucracies. VDC chairmen are allocating these resources in innovative ways.

*Finding 2:* The institutional mechanism proposed is the Arun Basin Development Secretariat (ABDS), which does not, as presently constituted, meet the requirements of a participatory planning and service delivery mechanism in the valley to respond to the needs identified by the communities. ABDS, as presently constituted and funded, lacks the capacity to undertake the detailed preparation and more importantly implementation and monitoring of the RAP.

*Recommendations:* GON should include in the RAP institution-building actions on three fronts: (a) community-based institution-building actions; (b) service-delivery mechanism; and, (c) coordination with donors. The scope of the recommended actions is given in Annex 4.



## Comparison of the two proposed access road alignments

Valley Alignment	Hill (Ridge) Alignment
<p>430 ha to be requisitioned</p> <p>Transmission line will be 120 kms which is 20 kms shorter (saves Rps.340 million)</p> <p>Maintenance costs likely lower, possibly does not need to be an all weather road after construction. Can two months without motorized access be tolerated after construction? Light vehicles (jeeps, hand-steered 2-wheel mini-tractors, possibly max. 1-ton minitrucks) will not damage the road severely.</p>	<p>310 ha. need to be requisitioned</p> <p>Transmission line 140 km or 20 km longer (Rps 340 million more expensive).</p> <p>Maximum gradient of 12%;maximum height 2500 feet</p> <p>Maintenance costs will be substantially higher during dam construction because of the need for all weather usage, because loads will be heavy (cement, steel), and some cargo cannot afford to be lost (turbines).</p> <p>As ridge alignment has many hairpin bends and other curves and much altitudinal change (2500 ft), maintenance per km will be higher.</p>
<p>Serves three districts (Dhankuta, Bhojpur and Sankhuwarsava), as two spur (jeepable) roads (Khandbari and Chainpur) are included in the project under RAP. If ridge alignment is chosen then other district (Bhojpur) southwest of Arun valley will likely build another road on the other side of the Arun along the valley alignment. If valley alignment is chosen, people will partly build the ridge jeep track themselves.</p> <p>Benefits of roads will be for three districts: increased opportunities for a more sustainable agricultural development, improved education and health, more effective family planning and ecotourism development.</p>	<p>Serves only one district. Communities on the west of the Arun river would have to porter all goods down to the river, then up to the ridge route.</p>

Valley Alignment	Hill (Ridge) Alignment
Road 76 kms shorter to Arun III (Upper Arun would be a common route 47 kms extra). Imports and exports cheaper, less fuel used, faster. Fewer hairpins than the ridge route, much less altitudinal difference, and shorter.	Imports and exports more expensive, transport longer and slower.
First stretch up to Tumlingtar traverses low biodiversity area: mostly agricultural land. Between Tumlingtar and Num stretches with Sal riverain forest of low biodiversity, but riverain Sal forest habitat threatened in Nepal, needs protection: forest users groups, with strict forest management plan and valley route alignment should follow power transmission line over the hill and not bisect this habitat.	Part of road goes along the edge of proposed Milke Danda area (cloud forests) and passes through three other cloud forest areas. Would this make extension of Milke Danda into a few forest remnants unfeasible? Cloud forests are of high biodiversity.
First stretch less steep: less erosion.	Steep road: more erosion and land slip risks.
Landslide spots identified. Landslide will likely cut only one bend.	Landslides caused by cutting road. One landslide might cut various bends (up to 12 bends cut by a single landslide have been observed on other Nepali roads).
Encroachment on this alignment will be likely less than on ridge alignment: many rich people will buy land. Valley is too hot and dry.	Encroachment likely more extensive: more people like to live on the ridge (because of cooler climate, better visibility).
No snow; safer, fewer accidents.	In winter during short periods there is snow on the track. [On the Tribhuvan Rajpath people are willing to travel 90 km longer to avoid the altitude difference: safer, more convenient, less wear on vehicles].
Depreciation of vehicles less: shorter distance, less steep.	Depreciation of vehicles would be greater: wear and tear shorten vehicle life and increase maintenance costs on steep roads and those subject to snow, more than valley alignment.
Far fewer social impacts as very few affected people. The valley is largely unpopulated along most of the Northern sectors of the road partly because it is too hot in the valley and malaria was restricted to the valley. Note potential risk of malarial recrudescence in valley route especially to the extert Terai workers or foreigners enter for road construction.	Ridge densely populated. Road has to go straight through many villages. Enormous social and cultural impact.

Valley Alignment	Hill (Ridge) Alignment
<p>Forest remnants are very widespread non-diverse Sal forest.</p> <p>Riverain sal forest habitats should be protected.</p>	<p>At least three patches of much rarer 'cloud' forest are currently bisected by the existing trekking trail and are being actively converted to slash-and-burn, overlogging, goats, fire etc.</p> <p>When the ridge route trail is upgraded to jeepable standards, it should be diverted around these patches of cloud forest and the old trail deactivated so that the cloud forest can regenerate.</p>
<p>Riparian sal forest richer than regular sal and habitat is becoming scarce in Nepal.</p>	<p>Cloud forests have higher biodiversity and an important function in capturing water.</p>
<p>Biodiversity and endemism much lower</p>	<p>Biodiversity and endemism much higher</p>
<p>Fewer and more disturbed habitat, in general more widespread (Burma to Bangladesh and even Indonesia has variants of Sal forest).</p>	<p>'Cloud' forest rare, not as widespread (alt. 3000 m.) as Sal; Cloud forest is not the depauperate high montane sub-nival habitats which are very widespread with low endemism in the Himalaya.</p>
<p>Cut and fill less easy: more spoils, which cannot be reused.</p>	<p>Cut and fill easier: less production of unused spoils.</p>

### Data about Acquisition, Compensation, and Rehabilitation Along the Hill Route

As of April 12, 1995, the process of notification and payment of compensation for the 310 ha of land required for the hill route had been completed. The above mentioned 310 ha belong or belonged to 1635 landowners. The total number of parcels comprising the 310 ha is 2834. Out of the 2834 plots acquired, 24 belonged to public and 2 to privately established Guthi (Religious Trust) Corporations, and 16 to schools. All the remaining 2794 plots were privately owned. NEA records indicate that only one of the 2834 acquired plots had a tenant. NEA has not been able to award compensation to 283 landowners entitled to receive compensation for 376 plots along the hill route. In these cases, either the ownership of the plots was being disputed in courts or the owners had migrated to other areas and could not be located by NEA, despite its repeated efforts until 1992.

However, the legal process of transfer of ownership of the land to GON, as required by law, was completed for only 15 - 20 percent of the land for which compensation has been paid.

NEA has taken physical and legal possession of only 4.77 ha of land for which it has paid compensation. The total number of land owners affected by these acquisitions were 18. NEA, except for the area already mentioned, has not taken physical possession of any lands for which it has paid compensation. Left free to utilize their land as they deem fit, the absolute majority of the people supposed to be affected by the loss of their land are yet to experience any adverse impacts from the loss of their lands.

A number of houses were legally acquired but not a single house has been physically possessed by NEA (acquisition of physical structure has been confined to a single hut, used for rest during agricultural activity).

It is worth noting that the Basantapur Village Development Committee (VDC) has used the land paid for by NEA to construct a road stretching for about 2-3 km from Basantapur.

Interviews with 11 families affected by loss of land in Tumlingtar revealed that at least three of these families consider themselves to be Seriously Project Affected Families. There may be such claims by families affected by acquisition of land in the Basantapur area as well. Although the families have sought rehabilitation, no assistance has been provided to them.

Scope of the Revised Regional Action Program (RAP)

The revised RAP should:

1. cover such concerns as drinking water supply, basic sanitation and primary health care, training for construction-related activity (\*), income generation schemes and forest resource management, which were found by the mission to be generalized local priorities throughout the region, family planning, maternity and child care facilities and programs, construction of a fish hatchery, rural electrification schemes to permit at least the largest population centers of the Arun Valley to benefit from the electricity generated by the project, settlement planning, inventory and mitigation actions for cultural heritage (\*\*), environmental monitoring, continuation of establishment of forest user groups in the valley route alignment and establishment of the Milke-Danda Conservation Area (\*\*\*);
2. include detailed implementation programs which should:
  - (a) define locality-specific pre-emptive (to be taken prior to road construction), preventive and mitigatory actions, beginning with actions in the areas to be directly affected by the valley access road corridor, and expanded over the years to the three Districts of the Arun Valley;
  - (b) include estimation of the associated costs;
  - (c) define the institutions which would implement the action programs, assess their institutional capabilities and determine the necessary institutional support requirements;
3. define the participatory planning approach to be utilized, on an annual basis, to revise, update, and extend (geographically and sectorally) the actions to be undertaken through the RAP within the said three districts; and,
4. cover monitoring of the implementation activities, which should clearly:
  - (a) identify: institutional responsibilities; operational procedures; logistical, material, staffing, training and technical assistance needs; and, budgetary requirements;
  - (b) define the division of labor between Arun Basin Development Secretariat (ABDS - see below) and NEA's Arun Project Environment Management Unit (APEMU) with respect to regionwide and project-related actions and monitoring activities; and,
  - (c) indicate how local communities and forest user groups and other groups -- especially those situated along or near the valley road alignment -- will be involved and how ABDS will liaise with them.

(\*) GON should ensure that NEA directs its own and its contractor's efforts in training for road construction skills, benefiting from IDA's pilot project in Butwal. The said efforts should be well-focused, and involving the contractor will bring benefits because he will have the best idea as to where there is marginal scope for bringing local skills up to required levels, and the number of likely jobs affected.

(\*\*) This part of the RAP should include a thorough survey and study of cultural heritage along the valley alignment (the survey/study should be conducted with participation of local people by involving them in the cataloguing and monitoring of such traditions and places; and, should define measures which would not only mitigate damages to cultural property and cultural heritage, but would proactively raise awareness of the local people).

(\*\*\*) This conservation area should be managed by local NGOs in cooperation with international NGOs (as in MBCA).

**Institutional Capacity Issues for the Revised Regional Action Program (RAP)**

In terms of institutional responsibilities, GON should include in the RAP institution-building actions on the following three fronts:

- (a) **Community-Based Institution-Building Actions.** The actions should:
- (i) include training for the institutions operating in the Arun Valley, notably in participatory planning of annual mitigation plans, participatory implementation and conflict resolution given the large number of boundary disputes in particular for common property resources; and
  - (ii) enhance women's role in these community institutions with further skills training.
- (b) **Service-delivery Mechanism.** GON should propose to IDA alternative institutional arrangements which would meet the requirements of a participatory planning and service delivery mechanism in the valley to respond to the needs identified by the communities.
- (c) **Coordination with donors.** GON should give immediate priority to coordination with the Donors and to securing flexible funding to permit the institutional process to be put in place.





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THE INSPECTION PANEL

NEPAL: ARUN III

MANAGEMENT RESPONSE TO  
REQUEST FOR INSPECTION

## ACRONYMS

ACRP	Acquisition, Compensation, and Rehabilitation Plan
BP	Bank Procedures
DSM	Demand Side Management
EA	Environmental Assessment
GIS	Geographic Information System
GLOF	Glacier Lake Outburst Floods
HMG/N	His Majesty's Government of Nepal
IDA	International Development Association
IEPS	Initial Executive Project Summary
kWh	Kilowatt hour
LCGEP	Least Cost Generation and Expansion Plan
MIS	Management Information System
MW	Megawatts
NEA	Nepal Electric Authority
NGO	Non-governmental Organization
OD	Operational Directive
OP	Operational Procedures
OPN	Operational Policy Note
PAFs	Project Affected Families
PIC	Public Information Center
PID	Project Information Document
RAP	Regional Action Plan for Arun III Project
SAR	Staff Appraisal Report
SPAFs	Seriously Project Affected Families
UNDP	United Nations Development Programme
WDR	World Development Report

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## CHAPTER 1: STRATEGIC CONTEXT AND PROJECT BACKGROUND

### I. STRATEGIC CONTEXT

1. Nepal is the seventh poorest country in the world. Annual GDP per capita is under \$200. Its social indicators are on a par with the least developed countries in Africa. Population is increasing rapidly; it is projected to double within 30 years. The absolute poor constitute almost half the population.

2. The ranks of the poor have been increasing in Nepal. GDP has been rising by 3.5 percent per annum. But this is not fast enough to reduce the number of poor people, when population itself is growing at 2.5 percent per annum. Economic growth would need to accelerate for the number of poor people to begin to decline.

3. Nor can significant inroads into poverty be achieved through redistributive policies. Since such a large percentage of the population is poor, there is simply too little to redistribute for such policies to be an important part of the poverty reduction strategy. This suggests that the core 1990 WDR strategy of efficient labor-intensive growth plus investments in human capital is the right approach for Nepal.

4. The Government has been pursuing this approach. It has adopted a number of policy reforms in recent years. Expenditures on basic social services have been increased and are programmed to rise further — by over 5 percent per annum in real per capita terms over the next 10 years.

5. While the results of these efforts have been positive, they have been constrained by two major factors — implementation capacity to convert the higher social sector spending into markedly improved literacy and health outcomes and power to fuel the private sector supply response to the reforms.

6. The proposed Arun III project addresses the second of these constraints. It will help put an end to the load-shedding and power shortages that have kept the labor-intensive micro-enterprise and tourist sectors from expanding and relieve existing pressures on fuelwood and on forest resources. By providing the basis for sustained and efficient growth, it is central to Nepal's — and IDA's — poverty reduction strategy.

7. The economic analysis of the proposed project suggests that the expected rate of return is 13.5 percent. This is adequate by Bank standards, which typically uses a minimum 10 percent benchmark for the opportunity cost of capital as a cutoff. Moreover, for Nepal, the critical constraint is not the availability of donor financing — indeed, Nepal's calculated "norm" IDA allocation is not being fully taken up for lack of good projects, and donor-financed project disbursements are among the slowest in the world. Rather the key constraint is absorptive capacity. Accordingly, the 10 percent opportunity cost benchmark overstates the value that the Arun project funds could earn in alternative uses over the next few years.

8. In the circumstances, Bank strategy is to work with the Nepalese authorities simultaneously on three fronts:

- First, we are helping Nepal to build institutional capacity on a broad front. As noted, implementation capacity is the key development constraint that Nepal faces. We are working with the authorities to relax that constraint and to increase the country's absorptive capacity for donor and other inflows. We are doing it through projects, economic and sector work, and technical assistance. This is a staff-intensive process, but essential for Nepal's development prospects.
- Second, we are continuing to work with the Nepalese authorities on the policy and public expenditure framework for sustained growth and poverty reduction. Critical here is the continuation of the program for revenue increases and expenditure prioritization — including the emphasis on increased spending for basic social services — set forth in the Policy Framework Paper.<sup>1</sup>
- Third, within the broader context of support for efficient power sector development in Nepal, we are proposing to finance (with other donors) the Arun project. The primary objective of this project is to meet Nepal's growing power requirements at least cost so that this constraint on growth and poverty reduction can be overcome.

## II. PROJECT BACKGROUND

9. Nepal's per capita commercial energy consumption is one of the lowest in the world. Only 9 percent of the population has access to electricity. Fuelwood is the most important energy source for cooking and heating. Indeed, the main energy sources are fuelwood (72 percent), agricultural residues (12 percent), dung (9 percent), and hydropower (1 percent); the remainder is imported (6 percent). Nepal's hydropower potential is estimated at 25,000 megawatts (MW), of which only 241 MW has been developed to date. The least-cost generation expansion plan for the Nepal grid identifies the Arun III hydropower project as one of the core investments in meeting Nepal's medium-term energy needs.

10. The proposed project, given its situation in the Arun Valley, poses a unique and complex set of environmental and socio-economic issues. The Valley is now accessible only by foot. Its 450,000 inhabitants lead a harsh subsistence life, with limited access to education and health services. They have no access to electricity or safe drinking water. Rapid population growth contributes to pressure on food supplies, jobs, and natural resources, in particular forests. Against this background, the proposed project represents a major opportunity — and poses major risks — for the future of the Valley. The access road required for project development and maintenance will greatly reduce transport costs into and out of the Valley and facilitate tourism and labor market development. But these changes, coupled

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<sup>1/</sup> See Nepal: Policy Framework Paper, 1994-96; SecM94-324, March 30, 1994.

with construction activities, could also have major effects on the fragile environment of the area.

11. In recognition of the various development-related risks, a very detailed environmental and socio-economic analysis was undertaken during project preparation. The analysis, led to the formulation of an Environmental Action Plan, with three major components: an Environmental Mitigation Plan, a Land Acquisition, Resettlement, and Compensation Plan, and a Regional Action Plan. Taken together the planned mitigation measures cover the full range of environmental and socio-economic risks. They aim to limit negative direct impacts and to maximize the Valley's prospects for sustainable growth and poverty reduction.





## CHAPTER 2: REQUEST FOR INSPECTION

1. The Request for Inspection alleges violation of Bank operational policies and procedures in six areas:

- ***economic analysis of projects:*** The allegations are that alternatives have not been properly considered and that the risk analysis is faulty. The latter is ascribed to the failure to treat properly three issues — possible upstream developments in China; possible shortfalls in power exports to India; and the valuation of large-project risks.
- ***energy policy:*** The allegation is the omission of demand side management measures from the program.
- ***disclosure of information:*** The allegations are that the PID lacks required detail; that technical material was released too late to be useful; and that the Environmental Assessment was not available in Nepali in a timely and convenient manner. There is also a request to make public the SAR.
- ***environmental assessment:*** The allegations are that alternatives were not fully considered; that there was insufficient material available before the public meetings; and that the cumulative impacts of Arun Valley development were not adequately analyzed. The lack of an assessment of the transmission line is alleged, along with the lack of mitigation plans for fish, floods, and disposal of construction spoils.
- ***involuntary resettlement:*** The allegations are that there were insufficient compensation and failure to provide electricity to the Valley and permanent employment and land to displaced families; that there was no socio-economic survey; and that resettlement planning was not done in a timely manner.
- ***indigenous peoples:*** The allegations are that there are no local benefits for the Valley's indigenous peoples, who will suffer only adverse impacts and that there is no mitigation or indigenous peoples development plan; that the cadastral survey was late; and that the indigenous peoples were insufficiently consulted.

2. The Request for Inspection also alleges adverse effects on the Requesters' rights and interests, in terms of:

- crowding out of social sector spending;
- too heavy reliance on foreigners for construction;
- crowding out of small power projects;
- undermining democratic processes; and
- adverse effects in the Arun Valley, including income loss, unemployment, food deficit, deforestation, health problems, and loss of livelihood from land.



## CHAPTER 3: PROJECT-SPECIFIC ISSUES RAISED IN THE REQUEST FOR INSPECTION<sup>1</sup>

### I. ECONOMIC EVALUATION OF INVESTMENT OPERATIONS

#### A. *The studies of possible alternative investments and approaches to meeting Nepal's power needs undertaken during project preparation meet the requirements of OP 10.04: the Economic Evaluation of Investment Operations.*

1. According to OP 10.04, consideration of alternatives is one of the most important features of proper project analysis throughout the project cycle. Bank procedures for the analysis of power projects involve the identification of the least-cost generation expansion plan (LCGEP) for meeting the projected load growth. The resulting least-cost investment program is then subjected to economic rate of return and risk analysis.

2. The analysis of Arun III followed this approach. The SAR summarizes the LCGEP analysis, for which many (some 3,000) alternative generation and expansion plans were initially considered. Underlying the LCGEP are 11 individual hydro investment project candidates of varying sizes, which had been examined to the pre-feasibility level or beyond. Thermal options were also considered, subject to technical feasibility constraints. The SAR includes a detailed description of the economic and risk analysis.<sup>2</sup>

3. In response to questions, additional alternative strategies were investigated in order to check the robustness of the standard least-cost analysis. This involved the consideration of project candidates that preliminary analysis had previously screened out. With the expanded project candidate set, the LCGEP model was constrained to *not* introduce Arun before 2010. This constraint led to the inclusion of several "Plan B" projects in the 2000-2009 period's LCGEP.<sup>3</sup> Using the set of assumptions considered by the Bank's appraisal team to be most likely, the cost of this alternative investment program was higher than the cost of the HMG/N's proposed investment program.<sup>4</sup>

4. The Request for Inspection argues that the Bank violated its operational policies and procedures by not ensuring that the Plan B project proposals were investigated to the pre-feasibility stage. This is an area where there are no hard-and-fast rules; professional judgment — about the likely costs and benefits of further study, and of the associated delay — is the determining factor. The appraisal team's assessment, endorsed by Management, was that the number of hydro candidates explored to the pre-feasibility level represented a very respectable effort for a country such as Nepal — especially in view of the time and expense

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<sup>1/</sup> Document numbers refer to the documents requested by the Panel in Mr. Bröder's November 4 memorandum to Mr. Wood. See Annex B for the list of documents and the corresponding numbering.

<sup>2/</sup> See Document #1: pp. 54-62; Annexes 5.4 and 5.7.

<sup>3/</sup> Plan B is described in Document #1: Annex 5.4, para 41.

<sup>4/</sup> See Document #5. See also Document #1: Annex 5.4, para 42.

incurred by the authorities in investigating them.<sup>5</sup> Hence the Bank's policy requirement was, in our view, met by the standard least-cost analysis. The reasonableness of this judgement is supported by the supplemental analysis done on the Plan B alternative. There is no evidence that further study of projects in the 30-80 MW range would displace Arun III from Nepal's LCGEP. Meanwhile, analysis and refinement continues. Indeed, the project contains funding for further pre-feasibility and feasibility work for small hydro projects. If attractive projects do emerge, they can be accommodated in the periodically-revised LCGEP.

**B. *The analysis of project risks meets the requirements of OP 10.04.***

5. As summarized in OP 10.04, the Bank's approach to risk analysis is to identify the costs and benefits of the various possible outcomes and to assign probabilities to them, as the basis for calculating the project's expected economic rate of return. This approach was carefully followed in the economic analysis of Arun III. The approach described in Annex 5.7 of the SAR goes beyond standard Bank practice — in the transparency and explicitness of the delineation of the assumptions underlying the analysis and the number (72) of possible outcomes considered.<sup>6</sup>

6. The breadth and depth of the risk analysis notwithstanding, it does not consider the risks to project viability of the possible construction of the Changsuo Basin Irrigation Project referred to in the request for inspection. This is because the appraisal team judged these risks to be minimal. As noted in the SAR, the catchment area of the Changsuo Basin is about 230 km<sup>2</sup>, less than 1 percent of the Arun Basin catchment, so any diversion is likely to be almost imperceptible at the project site.<sup>7</sup> Even if the flow in the tributary were totally cut off, the impact would not be significant. In the wet season, the Arun River flow would still be more than 400 m<sup>3</sup>/second; in the dry season, the river is fed by aquifers throughout the basin as well as by glacier melt. The Chinese authorities have recently reconfirmed that, because of its small size, the Changsuo Basin Irrigation Project is likely to have no effect on downstream water users.<sup>8</sup>

7. The Request for Inspection suggests that Arun III's viability depends on power sales to India; hence it argues that project approval must await a bilateral agreement. The economic analysis assumes "committed" energy sales to India — but for only up to 50 MW; purchases from India up to the same level are also assumed. This modest assumption is fully

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<sup>5/</sup> At an estimated average cost of \$1-1.3 million per pre-feasibility study and \$2.5 million per feasibility study, and with detailed engineering ranging up to approximately \$7 million for Kali Gandaki and \$15 million for Arun, the volume of engineering work carried out by Nepal represents considerable effort and investment of resources, or an estimated \$50 million since 1983.

<sup>6/</sup> For a discussion of standard Bank practice, see *Econ Report: Economic Analysis of Projects — Towards a Result-Oriented Approach to Evaluation*: World Bank, 1992.

<sup>7/</sup> See Document #1: paras 3.15-3.16.

<sup>8/</sup> See communications (October 24, 1994 and November 14, 1994) between Guangyao Zhu, Advisor to the World Bank Executive Director for China and Donal O'Leary, World Bank Senior Systems Planner/Engineer.

in line with recent levels of power trade between Nepal and India. The absence of a formal agreement has not impeded this volume of sales, even during the 1989-1990 trade and transit dispute which disrupted other trade flows. Recognizing the greater uncertainty associated with "surplus" sales to India (above 50 MW), they are *not* included in the demand forecast which was used in the least-cost analysis, and the economic analysis both values them at half the price of current sales and tests the sensitivity of the project's viability to their realization. The result — if no surplus sales occur — is a one percentage point drop in the project's economic rate of return, which remains above the opportunity cost of capital.

8. The Request for Inspection suggests that the project's large size needs to be factored into the risk analysis. OP 10.04 does not mention the treatment of risks in large projects, and special analytic techniques are not required. Nor does the Bank have an explicit policy with respect to the *valuation* of risks — as distinguished from the analysis and/or management of risks — associated with large projects. That said, the recognition of Arun's magnitude and importance to the Nepalese economy was what led the Bank to undertake such comprehensive risk analysis of this project, which is now considered a best-practice example of such analysis.

## II. POWER AND ENERGY POLICY

### A. *The design and appraisal of the project are/were consistent with Bank policies on the power sector and energy efficiency.*

9. A central tenet of Bank power and energy policy is the focus on countries with a clear commitment to improving sector performance.<sup>9</sup> Nepal has demonstrated the requisite commitment through the framework it is introducing under Arun III for the transparent regulation of the sector, the commercialization of the Nepalese Electricity Authority (NEA), and the promotion of private sector provision of power.<sup>10</sup> In addition, building on the IDA-financed FY92 Power Sector Efficiency Project, Arun III provides a vehicle for integrating energy efficiency issues into the policy dialogue — fully in line with Bank policy — for which the use of tariffs as an instrument of demand side management (DSM) is a critical issue. Following large increases in 1991 and 1993, electricity tariffs were raised by 38 percent in March 1994 — bringing them to about 70 percent of long-run marginal costs. Under the project, NEA is committed to further increases in order to meet its financial requirements;<sup>11</sup> with base case assumptions, they would average 4 percent per annum in real terms during the 1996-2004 period. By the latter date, tariffs would equal long-run marginal costs.

10. NEA's DSM program also includes non-price measures such as equipment sizing, timing of plant operation, power factor correction, and energy efficient lighting, as well as

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<sup>9</sup>/ See World Bank, *The World Bank's Role in the Electric Power Sector and Energy Efficiency and Conservation in the Development World*, 1992.

<sup>10</sup>/ See Document #1: paras 1.23-1.27.

<sup>11</sup>/ See Document #1: paras 1.18, 4.23, and 4.27.

efficiency improvement of non-electrical loads such as industrial steam cycle systems.<sup>12</sup> A central outreach facility to institutionalize these activities with the involvement of the private sector is also planned. Meanwhile, NEA has been carrying out a program to identify and systematically reduce network losses. NEA staff are trained in repairing defective meters, rehabilitating service connections and deteriorated lines, and related tasks. Equipment has been introduced to monitor losses, meter testing facilities have been improved, and exempt consumers (such as temples and NEA's own consumption) have been brought within the billing system. Non-technical losses are being addressed by improved meter reading and billing procedures, as well as by field inspections and correction of irregular connections. The resulting improvements in energy efficiency have been built into the Arun III load forecast and LCGEP.

### III. DISCLOSURE OF INFORMATION

#### A. *The content and dissemination of the Arun Project Information Document were substantially in line with Bank policy and procedures.*

11. This is an area where Bank policy and procedures have been evolving rapidly alongside project developments. Indeed, BP 17.50: *Disclosure of Operational Information* was issued in September 1993 — at the same time that the project was being appraised. The Arun Project Information Document (PID) was prepared on January 24, 1994, and made available to the Public Information Center (PIC) in March 1994. That the PID was not subsequently revised is fully consistent with BP 17.50. The latter requires revision of the initial PID before appraisal; revision after appraisal is called for only if there are major changes in the project. However, Arun III had been appraised by the time the initial PID was issued, and, in any case, appraisal did not result in major changes.

12. The PID provides the information required by BP 17.50. However, the PID does not discuss some issues required by BP 10.00, Annex A, *Outline for an Investment Project Information Document*. The latter was issued in June 1994; hence it does not apply to the Arun III PID. By that time, the availability of project information to the public in both Nepal and Washington already far exceeded the expanded requirements of the PID.

#### B. *Bank policies and procedures on the release of factual technical information have been complied with.*

13. Notwithstanding initial delays in implementing the new disclosure policy, the provisions of BP 17.50 on the release of factual technical documents have been adhered to. A number of factual technical documents<sup>13</sup> were cleared for public release and made available at the PIC during June/July 1994. More recently, sections of the SAR that deal with factual technical matters have been printed separately; they have been available at the PIC since September 1994.

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<sup>12/</sup> Ibid: paras 1.28-1.29.

<sup>13/</sup> See May 31, 1994 letter from Ms. Garcia-Zamor to Government of Nepal.

- C. *The dissemination of the results of the Environmental Assessment was substantially in line with Bank policies and procedures.*

14. The Environmental Assessment Summary was published in Kathmandu in May 1993; it was made available in the Arun Project Information Center in Kathmandu, which opened in October 1993. The results of the assessment were made available in Nepali in the Arun Valley in June 1993.<sup>14</sup> An oral presentation in the Valley was also arranged; a video tape of this meeting is available for the Panel's review. With respect to the Environmental Assessment for the Valley alignment of the access road, the key questions requiring feedback concern the compensation arrangements and appeal mechanisms for land acquisition. These have been summarized in Nepali and distributed widely along the proposed route.<sup>15</sup>

#### IV. ENVIRONMENTAL ASSESSMENT

- A. *The Environmental Assessment complies with Bank policies and procedures governing the environmental analysis of alternative investment possibilities, as reflected in OD 4.01: Environmental Assessment.*<sup>16</sup>

15. The Environmental Assessment Executive Summary<sup>17</sup> meets the requirements of OD 4.01 with respect to the treatment of alternatives. Chapter 6 of the summary addresses alternative technologies, three dam sites in the Arun Valley, and two different access road alignments. It clearly states that identification of Arun III was based on least cost studies undertaken up to 1990; these studies addressed environmental/social issues at the reconnaissance level for all feasible sites.

16. The access road has the most significant environmental impact of all the components of the Arun III development program. Full Environmental Assessments were conducted for both the Hill and Valley alignments — the two alternative access road routes

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<sup>14/</sup> See Document #1: para 3.37. See also November 11, 1994 communication from J.L. Karmacharya, Director-in-Chief to Donal O'Leary.

<sup>15/</sup> See para 31 below.

<sup>16/</sup> OD 4.01 is not applicable to this project since the IEPS for the Project was issued on February 5, 1987. Nevertheless, Management proceeded as if it were applicable. OD 4.01 is applicable to all projects for which IEPSs are issued after October 1, 1991. Projects for which IEPSs were issued earlier are subject to OD 4.00, Annex A, issued on October 31, 1989; for these projects, OD 4.01 is to be applied "where appropriate and feasible". OD 4.00, Annex A is, however, applicable to projects which reached the IEPS stage after October 15, 1989. For other projects past the IEPS stage, the requirement was to review "how to achieve the objectives" of OD 4.00, Annex A within the existing time and resources constraints. See also Annex A.

<sup>17/</sup> See NEA, *Nepal Arun III Hydroelectric Project: Environmental Assessment Summary*; SecM93-460, May 12, 1993.

considered.<sup>18</sup> The impacts are compared in the Environmental Assessment Summary. The selected Valley route is significantly shorter and affects less people, as illustrated in detail in the Environmental Assessment Summary. In addition, the construction period planned for the road (3-4 years) was carefully designed to allow for full implementation of all mitigation measures.<sup>19</sup>

- B. *The basin-wide environmental sustainability study meets the Bank's requirements with respect to the analysis of possible cumulative impacts of the development of the Arun Valley's hydropower resources.*

17. OD 4.01 states that a regional Environmental Assessment may be used where a number of similar but significant projects are planned with potentially cumulative impacts. With this as one of its objectives, a basin-wide study was prepared by the King Mahendra Trust for Nature Conservation.<sup>20</sup> This study, which is described in a 13 volume report entitled *Environmental Management and Sustainable Development in the Arun Basin*, investigated "ways in which management of the resources, economy and environment of the Arun Basin as a region might best respond to the processes of change brought by the hydroelectric development program".<sup>21</sup> In addition, project-specific Environmental Assessments covered Arun III, the alternative access roads, and the transmission line; they are discussed in the Environmental Assessment Summary. The effects of Upper Arun, which are likely to be environmentally more sensitive than Arun III, were studied separately.<sup>22</sup> Lower Arun, essentially a downstream powerhouse, is generally recognized to have less significant impacts.

- C. *The project's environmental studies and mitigation plans in respect of the transmission lines, risks to fish, and disposal of construction spoil are in conformity with Bank policies and procedures.*

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<sup>18/</sup> See Joint Venture Arun III Consulting Services, *Addendum to the June 1990 Environmental and Social Impact Study Report: Volume 2: Arun Access Road*, January 1992; and *Environmental Impact Assessment for Arun Access Road – Valley Route*, September 1992.

<sup>19/</sup> *Ibid.*

<sup>20/</sup> The King Mahendra Trust, which is a Nepalese environmental NGO, was chosen to carry out the work because of its internationally-recognized work in nature conservation in the Chitwan National Park and in setting up the Annapurna Conservation Area, where it has worked closely with indigenous peoples in income generation schemes and in promoting nature conservation and eco-tourism. See also paras 21, 31 and 35 below.

<sup>21/</sup> King Mahendra Trust for Nature Conservation, *Environmental Management and Sustainable Development in the Arun Basin*, Volume 1: Summary and Synthesis, October 1991: p. 1.

<sup>22/</sup> Morris and Knudsen Engineers, et al, *Upper Arun Hydroelectric Project – Feasibility Study, Phase II: Final Report*, December, 1991: Chapter 11.



18. The Request for Inspection's allegation notwithstanding, a full Environmental Assessment for the transmission line was conducted.<sup>23</sup>

19. Under the project, the risk from floods including glacier like outburst floods (GLOFs) and the effects and method of spoil disposal and appropriate mitigation measures were carefully studied.<sup>24</sup> The results were reviewed and approved by the Project's Panel of Experts.<sup>25</sup>

20. Fisheries studies conducted as part of the Environmental Assessment determined the effects of the project to be not significant. Critical spawning periods are during the monsoon season when adequate discharge is available from the (run-of-the-river) project; nevertheless, further work will be undertaken in the first year of the project to verify that potential impacts are minimal and identify mitigation measures, as necessary.<sup>26</sup>

D. *The preparation of the Environmental Assessments took into account the views of affected groups and local NGOs, in line with Bank policies and procedures.*

21. Extensive public consultations took place in Nepal during — and in the wake of — the project's environmental studies. Numerous consultations were held in 1990 and 1991 in the course of the King Mahendra Trust basin-wide study. More recently — in 1993 and 1994 — there have been a series of public consultations on the project in the Arun Valley. These have drawn on various project-related documents — in Nepali — including the above-mentioned environmental summary.<sup>27</sup> Reflecting the consultations, changes were made in the project to accommodate the views of affected people — including the provision of priority training and jobs with project contractors, and changes in the placement of the access road. The Government has responded to the disappointment expressed by some communities on the changes in the access road alignment by making a commitment to build spur roads to link these communities with the access road. The Regional Action Plan (RAP) also was designed with the direct participation of those to be affected; recognizing that indigenous people have traditionally managed their forests on a community basis, the RAP includes a program for forestry user groups.<sup>28</sup>

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23/ See Joint Venture Arun III Consulting Services, *Addendum to the June 1990 Environmental and Socio-Economic Impact Study Report: Volume 3 — EIA of the Transmission Line System*, January 1992.

24/ See Environmental Assessment Summary: pp. 39 and 60.

25/ See Document #1: paras 3.23 and 3.44(b) for a discussion of the Panel of Experts. See also *Compendium of Panel Reports*.

26/ See Environmental Assessment Summary: p. 78.

27/ See para 14 above. See also November 11, 1994 communication from J.L. Karmacharya, Director-in-Chief, NEA to Donal O'Leary.

28/ See also paras 33, 35, and 36 below.

## V. INVOLUNTARY RESETTLEMENT

- A. *The compensation provided for under the Acquisition, Compensation, and Rehabilitation Plan (ACRP) is fully consistent with the requirements of OD 4.30: Involuntary Resettlement.*

22. Arun III does not involve the resettlement of communities or of very large numbers of people. A total of 1,097 project affected families (PAFs) have been identified in the project area. Of these, 140 have been identified as seriously project-affected families (SPAFs).<sup>29</sup> The Acquisition, Compensation, and Rehabilitation Plan (ACRP) developed under the project is consistent with OD 4.30.<sup>30</sup> The ACRP addresses the compensation of families affected by land acquisition and provides — in addition to normal compensation under Nepal's Land Acquisition Act — rehabilitation grants to help both PAFs and SPAFs during the period of transition after their land is acquired by the project.<sup>31</sup> Based on comments provided by the Bank, ACRP implementation arrangements were agreed at negotiations.<sup>32</sup>

- B. *While land-based resettlement strategies are preferable according to OD 4.30, they are not required, and may not be appropriate, for projects with the scale of displacement of Arun III. Nonetheless, seriously affected families are being given the option of land compensation, and all PAFs are being offered full cash compensation for their land.*

23. Despite efforts to minimize land acquisition, some families face permanent loss of land. The type of compensation provided — cash versus land — depends on the significance of land in the affected family's income-earning activities. However, the actual value of compensation paid will be same whether it is paid in cash or in kind (land); all valuations are done according to standards laid out in the ACRP. SPAFs facing significant loss of land-based income under the project have been offered the option of receiving land instead of cash as compensation. Because there is no issue of large-scale community resettlement and family land-holdings are often fragmented and widely distributed within the community, SPAFs are being given the flexibility of identifying their preferred replacement holdings. NEA, not the Government, will purchase any replacement land chosen by SPAFs.<sup>33</sup>

24. All other affected families are to be provided cash compensation for their land. The ACRP provides for compensation for land, buildings, and immovable assets on acquired

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<sup>29/</sup> A household is classified as an SPAF if it (1) loses its dwelling unit or (2) if its main source of income is from land and at least half of total income will be lost due to project-related land acquisition. See Document #1: Annex 3.3, para 2.

<sup>30/</sup> Joint Venture Arun III Consulting Services, *Acquisition, Compensation, and Rehabilitation (ACRP): Action Plan*, Initial Report, April 1993; Final Update, June 21, 1994.

<sup>31/</sup> Ibid: Sections 3.3 and 3.4 and Appendix A.

<sup>32/</sup> See *Arun III Agreed Minutes of Negotiations*: para 9 and Annex 5, Attachment 2.

<sup>33/</sup> Ibid: Section 3.8. See also Document #1: Annex 3.3

land at market values, based on detailed cadastral surveys of the entire access road area.<sup>34</sup> SPAFs who opt for cash compensation and PAFs will receive sufficient funds to purchase land of similar size and quality. Grievance procedures are included explicitly in the ACRP.<sup>35</sup>

25. A cadastral survey of all areas expected to be affected by the project was completed prior to land acquisition.<sup>36</sup> Compensation arrangements are covered under the ACRP for all land so surveyed, which includes land held under sole proprietorship formal and informal tenancies, and land owned by a group or community. In addition to compensation provided to landholders, the ACRP provides for land compensation and rehabilitation grants for tenants. Where clear ownership of land or property affected by the project by a group of people or a community can be established, then the group or community is to be treated as a PAF for compensation purposes.<sup>37</sup>

**C. *The objective of the Bank's resettlement policy is to ensure that the population displaced by a project are provided opportunities to share in project benefits. It contains no requirements as to how project benefits should be shared, nor does it require that permanent employment be provided to displaced persons.***

26. The project has been designed to ensure that residents of the Arun Valley receive a range of benefits from the project. From the point of view of valley residents, the main direct benefit derives from the access road, which will reduce transportation costs into and out of the Valley dramatically. In addition, construction of the access road and other infrastructure will create substantial project-related employment in the Valley, and local residents are being given priority in filling these jobs.<sup>38</sup> The RAP provides for rural electrification of the Valley through micro-power stations; contract documents contain provisions for turning project power sources over to local communities on completion of construction. This will allow electrification of most of the major villages in the valley downstream of the project site.<sup>39</sup> Electric power is another direct benefit of the Arun III project.

27. OD 4.30 does not require SPAFs to be compensated through permanent employment. It does require that displaced persons be no worse off, if not better off, than before displacement. To this end, on top of compensation for loss of land, at least one person in each SPAF household is to be offered employment by NEA under the ACRP. A special

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34/ See ACRP Action Plan: Appendix A.

35/ Ibid: Section 3.9.

36/ Ibid: Section 3.1.

37/ ACRP Action Plan: Section 11.2.

38/ See Document #1: Annex 3.2, para 25.

39/ See Document #1: Annex 3.2, paras 12-15.

training program is being set up to impart job skills to those participating in this program,<sup>40</sup> which is intended to help increase SPAFs' earnings capacity on a permanent basis.

D. *Detailed socioeconomic surveys were carried out during project preparation, as required by OD 4.30.*

28. Full socioeconomic surveys, covering all PAFs, were carried out in 1990 for the Hill (road) alignment, and in 1993 for the Valley itself. Detailed cadastral surveys have also been undertaken.<sup>41</sup> <sup>42</sup> A Management Information System (MIS), integrated a Geographic Information System (GIS), and a project management subsystem have been developed for planning and monitoring the ACRP, and information from the cadastral and socioeconomic surveys are currently being entered into the system. This is the first time that an integrated MIS/GIS has been developed to manage land acquisition programs for a Bank-financed project prior to project implementation. The integrated MIS/GIS will provide a unique opportunity for Bank and ACRP staff to closely monitor the impacts of the project on affected families throughout the implementation phase.<sup>43</sup>

E. *The timeliness of resettlement planning under the project meets the requirements of OD 4.30.*

29. In line with OD 4.30, the draft ACRP was prepared prior to project appraisal, including all necessary surveys of affected families and properties.<sup>44</sup> All families to be affected by construction of the access road or the hydropower site have been identified. An initial identification has been made of families potentially affected by construction of the transmission lines and the principles for their compensation arrangements have been agreed. (Definitive identification is pending decisions on the final alignment of the lines, which will be constructed five years after the start of the project.) Permanent displacement of families due to construction of transmission lines will be minimal; at most only eight households are expected to be permanently displaced.<sup>45</sup> Much of the land affected by the transmission lines will require only way-leave and building height restrictions. Arrangements have been made under the ACRP to compensate affected families for any such restrictions.<sup>46</sup>

30. Thus the vast majority of affected families know already that they will be displaced by the project and what form of compensation they will receive. However, they do

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40/ See *ACRP Action Plan*: Section 3.8.

41/ See Document #1: para 3.32 and Annex 3.3, para 11.

42/ See also paras 25 and 34.

43/ See Document #1: Annex 3.3, para 21.

44/ See footnote 30 above.

45/ See Document #1: Annex 3.3, Table 1.

46/ See Document #1: Annex 3.3.

not know the precise date of displacement. Given the complexity and duration of the project, the timetable of land acquisition, compensation, and rehabilitation activities is to be finalized on a two-year rolling basis. The implementation timetable for ACRP activities in the first two years of the project (primarily construction of the road) will be finalized within three months of the time that a decision is taken to begin construction. The ACRP timetable for successive years will be prepared annually, covering at least the following two years.<sup>47</sup>

31. To make clear the policies and procedures being followed, NEA has prepared a *Due Process Manual* in Nepali.<sup>48</sup> The Manual describes the ACRP, compensation procedures, land acquisition procedures, payment of compensation and rehabilitation grants, provision for special treatment of SPAFs, compensation of public properties and facilities, consideration of informal tenant rights, grievance procedures, and monitoring and evaluation of the ACRP. Over 3,000 copies of the Nepali version of the *Manual* have been distributed to PAFs and to other concerned persons, and it has been discussed extensively in public meetings in the project area.<sup>49</sup>

## VI. INDIGENOUS PEOPLES

### A. *Mitigation efforts proposed under the project and included in the Regional Action Plan are consistent with OD 4.20: Indigenous Peoples.*

32. OD 4.20 requires the preparation of a culturally appropriate development plan, based on full consideration of the options preferred by the indigenous people affected by the project. To this end — and at the request of Government, the World Bank, and the UNDP — the basin-wide study prepared by the King Mahendra Trust for Nature Conservation examined how changes induced by the project would impact various social and ethnic groups<sup>50</sup> in the Valley and designed the RAP accordingly. The study's summary report<sup>51</sup> and Action

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<sup>47/</sup> See Document #1: Annex 3.3, para 18.

<sup>48/</sup> NEA, *Arun III Hydroelectric Project — Due Process Manual*, November 1993. See also Document #1: Annex 3.3, para 18.

<sup>49/</sup> See November 11, 1994 communication from J.L. Karmacharya, Director-in-Chief, NEA to Donal O'Leary.

<sup>50/</sup> The basin is culturally and ethnically diverse. Rai, Limbu, Gurung and Magar taken together make up 53 percent of the total population in the Sankhuwasabha District. This is followed by 27 percent Brahmans/Chhetris, 7 percent for occupational caste groups and Tamang, Sherpa and Tibetan, 5 percent for Newar and 1 percent for others. However, the sample population from the potential growth centers close to the proposed road alignment and dam site give a different picture to that of the district in general. They are dominated by Brahmans/Chhetris and Newars, the trading castes, while Rai, Limbu and other castes of Mongol origin account for about one-third of the total. Occupational caste groups and Kumhals, both regarded as underprivileged, are estimated at about 10 percent.

<sup>51/</sup> King Mahendra Trust for Nature Conservation, *Environmental Management and Sustainable Development in the Arun Basin, Volume 1*, October 1991.

Programs<sup>52</sup> form the basis for the RAP. The RAP fulfills the objectives of OD 4.20 by including a range of actions to address the diverse development needs of all groups in the Valley, including both the very poor and those who have strong ethnic or cultural affiliations, as well as other Valley residents. Actions proposed under the RAP are designed to be sensitive to the cultural diversity in the Arun Valley and to take full account of the different groups' relationship to land, natural resources, and their cultural heritage.

33. The RAP includes actions in six broad areas, as follows: conservation; income generation; institutional strengthening; extension and training; infrastructure and energy; research, monitoring and information. In terms of scheduling, five sectoral programs are regarded as priorities for implementation. These relate to: strengthening local forest management; helping local communities service construction-related demands; strengthening government institutions to cope with impacts; training and education for local human resource development; and environmental monitoring. The tentative cost of the RAP is estimated at \$14.6 million (excluding contingencies).<sup>53</sup>

B. *The recommendations of OD 4.20 with respect to the sequencing of (first) establishing legal recognition of indigenous peoples' land rights — through cadastral surveys and other means — and (then) acquiring the land have been followed.*

34. A key objective of OD 4.20 is that indigenous peoples not become worse off through a loss of land rights as a result of project-related activities. As noted earlier, during project preparation a cadastral survey of all land in the area of influence of the access road — including the road right-of-way itself and land within one day's walk of the planned right-of-way — and other components of the project was completed prior to land acquisition; this provided for legal recognition of use rights in the surveyed area.

35. A substantial portion of land required by the project is owned by the Government, particularly forest land. By tradition, local communities use these areas for grazing, collection of fodder, firewood, and so on. Arrangements have been made in the ACRP to compensate any community or users group who is looking after the forest and dependent on it for timber and fodder for the loss of these commodities.<sup>54</sup> In addition, to mitigate deforestation pressures, the RAP will support the continuation of the ongoing process of forming pasture and forest-user groups; to date, 34 forest user groups have already been formed along the road right-of-way; 27 additional groups are to be formed.

36. Meanwhile, the national cadastral survey that is underway has been completed in Bhojpur and is nearing completion in Sankhuwasabha.<sup>55</sup> Actions taken under the project to regularize land tenure, to recognize use rights on public lands, and to set up pasture and forest-users groups to manage community resources are all efforts to protect the land-use

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<sup>52/</sup> King Mahendra Trust for Nature Conservation, *Action Program, Volume 2*, October 1991.

<sup>53/</sup> See Document #1: Annex 3.13, para 7.

<sup>54/</sup> Ibid: Section 3.6.1.

<sup>55/</sup> See November 21, 1994 facsimile from Joe Manickavasagam, World Bank Resident Representative in Nepal, to Donal O'Leary.

rights of the people of the Arun Valley. These precautions notwithstanding, a close watch will be necessary throughout project implementation to ensure that the objectives of OD 4.20 are met. To this end, the project supervision plan involves careful monitoring and evaluation of the impact of project-related activities on vulnerable groups in the Valley.

**C. *Project preparation has met the requirements of OD 4.20, in terms of the informed participation of the affected indigenous peoples in the design of the RAP.***

37. The preparation of the RAP was highly participatory. The King Mahendra Trust study team was made up largely of Nepalese experts. There was close and continuous interaction among study team members and the people of the Arun Basin. A wide-ranging household survey was undertaken to learn from local residents their expectations as well as to tap their knowledge and experience. Over 70 man-months were devoted to studies in the Arun Basin itself. The study began and ended with two major workshops in the basin at which representatives from local HMG/N offices, local NGOs, village leaders and the public gave their opinions and ideas on how the study should best proceed and, later, feedback on the RAP's proposals for action programs.<sup>56</sup>

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<sup>56/</sup> See King Mahendra Trust for Nature Conservation, *Volumes 1 and 2*.





## CHAPTER 4: CONCLUSION

1. We believe that Chapter 3 appropriately addresses the questions raised in the Request for Inspection and clearly demonstrates that the Bank has followed its operational policies and procedures with respect to the design and appraisal of the proposed project. Of critical importance for quality at entry, we have assessed the various technical, economic, financial, environmental, and sociological risks carefully, devoting considerable attention to alternative scenarios. With a view towards managing project risks, we have provided for remedial actions where appropriate. In addition, we have built into our supervision plan mechanisms for periodic monitoring and evaluation — the results of which can be addressed during implementation — in order to safeguard the project's development impact in the face of unanticipated developments.



## ANNEX A

## SELECTED BANK OPERATIONAL POLICIES AND PROCEDURES

Policy Guideline	Date of Policy	Point in Project Cycle to Which Policy Applies	Date of Policy Applicability for Arun III	Comments
OD 4.00, Annex A: Environmental Assessment	Oct. 31, 1989	<ul style="list-style-type: none"> <li>* applicable to projects with IEPS issued after October 15, 1989</li> </ul>		<ul style="list-style-type: none"> <li>* for projects not in advanced stage of preparation, the Task Manager &amp; Regional Environment Division should review status &amp; recommend how to achieve objectives within existing time and resource constraints</li> </ul>
OD 4.00, Annex B: Environmental Policy for Dam and Reservoir Projects	April 28, 1989	<ul style="list-style-type: none"> <li>* not said to be retroactive</li> </ul>		
OD 4.01: Environmental Assessment	Oct. 3, 1991	<ul style="list-style-type: none"> <li>* IEPS issued after October 1, 1991</li> </ul>	<ul style="list-style-type: none"> <li>* not applicable since IEPS was issued on February 5, 1987</li> </ul>	<ul style="list-style-type: none"> <li>* OD 4.01 applicable "where appropriate and feasible" to projects with IEPS before October 1, 1991 and are subject to OD 4.00, Annex A.</li> </ul>
OD 4.20: Indigenous Peoples	Sept. 17, 1991	<ul style="list-style-type: none"> <li>* at IEPS stage</li> <li>* at preparation and appraisal stages</li> </ul>	<ul style="list-style-type: none"> <li>* not applicable at IEPS stage</li> <li>* applicable at appraisal stage</li> </ul>	<ul style="list-style-type: none"> <li>* at IEPS stage, the applicable policy was OMS 2.34: <i>Tribal People in Bank-Financed Projects</i> issued February 1982, which was superseded by OD 4.20</li> </ul>
OD 4.30: Involuntary Resettlement	June 29, 1990	<ul style="list-style-type: none"> <li>* at IEPS stage</li> <li>* during appraisal and negotiation</li> </ul>	<ul style="list-style-type: none"> <li>* not applicable at IEPS stage</li> <li>* applicable at appraisal and negotiation stages</li> </ul>	<ul style="list-style-type: none"> <li>* at the IEPS stage, the applicable policy was OD 2.33: <i>Social Issues Associated with Involuntary Resettlement in Bank-Financed Projects</i> issued in February 1980, which was superseded by OD 4.30</li> </ul>
BP 17.50: Disclosure of Operational Information	Sept. 1993	<ul style="list-style-type: none"> <li>* at IEPS stage for PID</li> <li>* PID to be updated before appraisal</li> <li>* PID to be updated after appraisal if major changes to project made by previous project preparation for Factual Technical Document (FTD)</li> </ul>	<ul style="list-style-type: none"> <li>* not applicable at IEPS stage</li> <li>* applicable on January 1, 1994 (i.e., after appraisal for both PID and FTD)</li> </ul>	<ul style="list-style-type: none"> <li>* pursuant to (para. 15) and (Annex D, para. 1 (a) of BP 17.50, for projects that were past the IEPS stage but not yet presented to the Board, a PID was to be produced by January 1994.</li> <li>* disclosure of FTD on request but only at Country Director's discretion (para. 12 of the Policy on Disclosure of Information)</li> </ul>

Policy Guideline	Date of Policy	Point in Project Cycle to Which Policy Applies	Date of Policy Applicability for Arun III	Comments
BP 10.00, Annex A: Outline for an Investment Project Information Document	June 1994	<ul style="list-style-type: none"> <li>• at identification stage: draft initial PID when project enters 5-year lending program</li> <li>• at preparation and pre-appraisal: discuss PID with borrower/stakeholders. Update PID</li> </ul>	• not applicable	• Arun III PID was prepared in January 1994 and made available at the PIC in March 1994
OP 10.04: Economic Evaluation of Investment Operations BP 10.04 (Supplement to OP 10.04)	<ul style="list-style-type: none"> <li>• OP: April 1994 and Sept. 1994</li> <li>• BP: April 1994</li> </ul>	<ul style="list-style-type: none"> <li>• at identification stage</li> <li>• at appraisal stage</li> </ul>	• not applicable given advanced stage of preparation except where identical to previously applicable instructions	• at IEPS and appraisal stages, the applicable policies were: OMS 2.21 <i>Economic Analysis of Projects</i> issued May 1980, and Central Projects Note (CPN) 2.01 <i>Investment Criteria in Economic Analysis of Projects</i> issued in June 1977, both of which were superseded by OP 10.04

Note: Arun III - IEPS: February 5, 1987  
 - Appraisal: May and September 1993

**DOCUMENTS REQUESTED IN MR. BRÖDER'S  
NOVEMBER 4, 1994 MEMORANDUM TO MR. WOOD**

- (1) The Memorandum and Recommendation of the President (MOP), the Staff Appraisal Report (SAR) and the legal documents for the proposed project;
- (2) Environmental Management Plan;
- (3) Regional Action Plan;
- (4) The Least Cost Generation and Expansion Plan (LCGEP) of 1987 and 1990;
- (5) 1993/94 Argonne National Laboratories (ANL) Study: Analyses of Options for the Nepal Electrical Generating System, May 1994;
- (6) Feasibility Studies of alternative project designs;
- (7) Available documents on a proposed Changsuo Basin Irrigation Project in China;
- (8) Arun III HEP: Environmental Impact Assessment for Arun Access Road – Valley Route Report, September 1992; and
- (9) Nepal's Land Acquisition Act, 1979.



### PREVIOUS REQUESTS TO THE BANK

• Attachment VIII of the Request for Inspection lists ten previous complaints to the World Bank.

- Four of the items refer to correspondence with the Executive Directors and are not the responsibility of Bank Management.
- One letter from the Requester dated July 7, 1994 requested documentation. The response, dated July 18, 1994, referred the Requester to the Project Information Center in Kathmandu, which houses all the requested documentation. We also enclosed a list of the documentation available at the World Bank's Public Information Center (PIC) in Washington.
- A second letter from the Requester dated October 7, 1994 requested a list of documents relating to the Arun III project. The World Bank Resident Mission in Nepal responded on October 7, 1994, providing a list of documents available at the Resident Mission and a list of documents available at the Project Information Center in Kathmandu. In addition, the Requester was referred to the PIC in Washington.
- We have checked our correspondence files in relation to the other dates cited. All such correspondence came from the Alliance for Energy and was fully responded to by the World Bank. Supporting documentation is available.

