

# OED Précis



Operations Evaluation Department

May 1995

## Learning from Narmada

The Sardar Sarovar projects on the Narmada River in western India, and the World Bank's role in supporting them until 1993, have sparked worldwide controversy. The projects are designed to bring irrigation to almost 2 million hectares of arid land, in what would be the largest such system in the world. They promise drinking water for 30 million people in drought-prone areas, and electricity for agriculture, cities, and industry. But they threaten the livelihoods of more than 140,000 people in the areas to be flooded by the Sardar Sarovar dam and to be affected by the building of canals. And they may have negative environmental consequences.

An independent review, commissioned by the Bank and completed in June 1992, found that the resettlement and environmental aspects of the projects were not being handled in accordance with Bank policies. Responding to the review, the Bank made its continuing support for the dam contingent on the borrower's achievement of performance standards for resettlement and economic rehabilitation of displaced people, and for environmental protection. But in March 1993 the Bank canceled the remainder of its loan for the project at the request of the Indian authorities. Project construction is proceeding with other funds.

As for any project at the completion of Bank loan disbursements, the Bank has issued completion reports on the Sardar Sarovar projects. The Bank's independent Operations Evaluation Department (OED) has provisionally

assessed the projects on the basis of the completion reports. Once key uncertainties are resolved, OED will undertake its own fact-finding work to re-estimate project costs and benefits and—after several years—to produce an impact evaluation. Meanwhile, this Précis outlines the salient findings of evaluations completed thus far, the lessons they yield for development decision making, and the effects that the Narmada experience has had upon the Bank.

The Sardar Sarovar projects were conceived as the first in a series of some 30 projects designed to develop the Narmada basin, which is India's last large unexploited resource for hydropower and irrigation. The Bank's support for the scheme took the form of a ten-year Dam and Power Project (credit 1552/loan 2497) and a companion three-year Water Delivery and Drainage Project (credit 1553). Both projects were processed in parallel and approved in 1985. (Box 1.)

The basic rationale for the projects is sound. After ten years of negotiation, arrangements for sharing and using water by the four benefiting states—Gujarat, Madhya Pradesh (MP), Maharashtra, and Rajasthan—were defined by the Narmada Water Disputes Tribunal (NWDT) in 1979. The comprehensive basin development and management plan, based on binding agreements for water allocation among the states and institutional arrangements for program execu-

tion, was a historic achievement. If it can be implemented satisfactorily it will improve the quality of life for millions of very poor people.

### Opinions on the projects

Critiques of the Sardar Sarovar projects by local and international nongovernmental organizations (NGOs), academics, and the media are diverse and extensive. They have focused mainly on the displacement of small farmers and tribal groups, but also on the treatment of environmental issues and, in the case of some critics, on the basic development model that the projects are seen to symbolize. Some NGOs have expressed concern about the safety of the dam (Box 2). All agree on the need to properly resettle and compensate people adversely affected by the projects. According to some, such as Narmada Bachao Andolan, there has not been a single satisfactory resettlement in the Narmada valley. Others, such as Arch-Vahini, find significant progress being made, where "oustees" have agreed to move, and indeed believe that the projects have been a vehicle for significant improvements in resettlement and rehabilitation (R&R) in India.

### Independent review

Public concern about the environmental and resettlement aspects of the projects led the President of the Bank to commission the first

### Box 1: Project benefits and costs

*Benefits:* The Sardar Sarovar projects seek to provide:

- Irrigation water for about 1.8 million hectares (ha), directly benefiting 800,000 families in severely drought-prone areas, mainly in Gujarat but also in Rajasthan.
- Domestic, municipal, and industrial water for about 30 million consumers, in areas where malnutrition and unsafe domestic water supply cause a wide array of endemic diseases.
- Power generation capacity of 1,450 megawatts (MW) and distribution of hydroelectric energy to Gujarat, Madhya Pradesh, and Maharashtra. The projects would substantially improve the hydrothermal mix of India's Western Regional grid (whose installed capacity was 12,000 MW in 1990). Using hydro-power rather than coal to generate 1,450 MW avoids 3.2 million tons of carbon dioxide emissions each year.

*Costs:* Construction costs are estimated as \$5.2 billion in 1992 US dollars. As designed, the reservoir will submerge 38,000 ha of land at full water level. It will fully or partly cover 245 villages that are home to 41,000 families (80 percent in Madhya Pradesh, 11 percent in Gujarat, and 9 percent in Maharashtra). As well as their land, the people affected by the reservoir will lose a number of important cultural sites. Canal construction will take about 4 percent of the canal command area or 74,000 ha, and thus affect the land owned by a further 68,000 families. About 24,000 of the canal-affected families stand to lose more than a fourth of their land, and about 2,000 of them will lose more than half. Forest land will be inundated, rates of sedimentation in the river are likely to change, and, in the medium to long term, the reduced flow of river water into the Gulf of Khambat is expected to reduce the yield of artisanal fisheries.

ever independent review of a Bank-supported project under implementation. The review panel was headed by Bradford Morse. Published in June 1992, the independent review (IR) strongly criticized the Bank and borrower for paying inadequate attention to resettlement and rehabilitation and to environmental protection. (See *Sardar Sarovar: The Report of the Independent Review*. Ottawa, Canada: Resource Futures International, June 1992.)

Responding to the IR, in September 1992 the Bank set standards of performance for its continuing support of the dam project (the delivery and drainage project had already been completed in July 1992). An action plan, developed by the Bank in consultation with the Indian authorities, was reviewed and endorsed by the Bank's executive directors. In March 1993, however, the Indian government requested the Bank to cancel the remainder of its loan for the project. The government

committed itself to completing the project with other sources of funds, and it affirmed its continuing commitment to the R&R and environmental standards embedded in its agreements with the Bank.

#### Developments since 1992: two evaluations compared

Three years after the IR was published, in March 1995, the Bank's South Asia Region issued completion reports (PCRs) on the Narmada projects. These evaluation reports by operational staff take up the concerns raised by the IR, outline the actions taken since the IR was published, and pinpoint some outstanding questions. Each report contains a section contributed by the borrower that notes points of disagreement with the Bank. The following paragraphs compare the findings of the IR with those of the completion reports.

#### Resettlement and rehabilitation

*Independent review:* The IR criticized the Bank for failing to comply with its own guidelines on R&R and on the treatment of tribal peoples. The Bank had not insisted on proper preparation of R&R plans or state government policies for implementing the provisions of the NWDT, and the resettlement components of the projects were inadequately appraised. The projects did not meet the needs of tribal people whose land was to be inundated or of people whose land was to be affected by the building of canals. Bank efforts to compensate for the lack of an adequate appraisal helped bring about some improvements, but this "incremental approach" to the task of R&R failed to achieve all the changes needed.

The IR found the borrower to be in breach of the provisions of the NWDT and the Bank's legal agreements. It noted that lack of adequate baseline information on the people to be affected made it impossible to prepare effective resettlement plans, and that the people to be affected had not been adequately consulted or informed of their resettlement options and rehabilitation packages. It also noted institutional weaknesses, poor implementation, particularly in MP, and inadequate links between dam construction and R&R implementation.

The concluding chapter of the IR stated: "There is a need to consider [the projects] in the social and environmental context of the Narmada valley as a whole, to consult, inform, and involve the people affected by the projects....The opposition, especially in the submergence area, has ripened into hostility. So long as this hostility endures, progress will be impossible except as a result of unacceptable means."

*PCR:* The PCR finds that "A long learning process led to what can now be considered a reasonably well structured program." Each state progressively improved its R&R policy;

the most liberal was that of Gujarat, followed by Maharashtra and MP. At the closure of the Bank's loan disbursements, implementation appeared to be satisfactory in Gujarat but less so in Maharashtra and MP. The PCR recognizes the Bank's failure to follow its guidelines at appraisal, but also records the Bank's large efforts to redress the situation during implementation. It acknowledges the complexity of R&R and the efforts made by both Bank and borrower to adopt satisfactory policy, plans, and links between the pace of dam construction and the progress of R&R.

By May 1994, Bank staff report, about 6,600 of the 41,000 families to be affected by the reservoir had been resettled and economically rehabilitated in a satisfactory manner. Out of some 24,000 families who stood to lose more than 25 percent of their land to the construction of canals, about 10,000 had been compensated and economically rehabilitated, though on terms inferior to those that are now being considered by the Gujarat government.

#### *Environment*

*Independent review:* The projects disregarded the environmental regulations of both India and the Bank, most of which had been in place for at least a decade. (By 1992, seven years after project approval, neither the Bank's legal requirements nor the conditions attached to the Ministry of Environment and Forests' 1987 environmental clearance had been met.) The review criticized the projects' disjointed, piecemeal approach to environmental planning: "The 'pari passu' principle for doing environmental studies as construction proceeds undermines the prospect for achieving environmental protection." The IR found that lack of basic data and consultation with affected people made it very difficult to anticipate and mitigate environmental impacts. It expressed strong concerns about the projects' possible environmental consequences.

*PCR:* After the IR the Indian government (August 1993) issued a comprehensive environmental overview for the project, together with studies on the upstream and downstream impacts and a preliminary environmental impact assessment for the irrigation command area. The government made concerted efforts on several environmental fronts, including compensatory afforestation (expected to be completed before the dam is filled), catchment area treatment (underway and expected to be completed on time), and preservation of cultural sites and protection of wildlife. Bank staff note that in early 1995 the government issued an environmental assessment covering all environmental aspects of the project.

The PCR notes that "consultants recruited to assist the borrower believe the remaining environmental matters do not pose serious threats to either the environment or local residents, except in the estuary downstream of the dam where some fishing communities may need R&R and water may need to be released for environmental control at a later stage."

The PCR argues the need to safeguard the environment downstream by maintaining adequate water releases from the dam from the start, rather than risking committing too much water to irrigation and then having to withdraw water supplies from farmers if environmental problems develop downstream.

#### *Health*

*Independent review:* "The threat of malaria is serious, projects have been designed without appropriate safeguards..."

*PCR:* The Gujarat Health Department has prepared an action plan for surveillance and control of malaria. But sound engineering practice will be needed to limit canal seepage, water logging, and pools of all kinds, and the incidence of waterborne diseases will need to be closely monitored.

#### **Box 2: Dam safety**

The government of Gujarat established a Dam Review Panel in June 1981, made up of five national and two expatriate experts, to ensure the adequacy of the foundation and the overall design safety of the main dam and its appurtenances. The panel accepted the layout, design, and dimensions of the facilities, while the Bank's consultants confirmed the adequacy of the design data, criteria, and safety factors and the integrity of the main dam, spillways, intake and outlet works, and other structures. In 1994, however, a 1/100 year flood caused heavy damage to the incomplete stilling basin. This has now been repaired.

#### *Hydrology*

*Independent review:* "Significant discrepancies in the hydrological data and analyses show that the projects will not perform as planned....A comprehensive evaluation is needed, including a complete systems analysis."

*PCR:* After the IR was published the borrower's Central Water Commission and a Bank consultant reviewed and confirmed the adequacy of the hydrology data that underlie project planning. But a 1994 review by an independent team of experts appointed by the government of India could not reach a firm conclusion on likely river flows and recommended a re-examination of "dependable water availability."

The PCR supports the contention that the river flows are adequately understood. But it argues that in view of the ways farmers will probably use irrigation water, plus the need to maintain water releases to safeguard the environment downstream of the dam, plus the uncertainty about whether the Narmada Sagar dam upstream of the Sardar Sarovar dam will be built on sched-

ule, not enough water will be available to irrigate all the planned command area. On this basis the PCR recommends a gradual "stepwise" expansion of irrigation in the command area. In any case, it notes, it would be more economic to irrigate more intensively.

The *borrower's view* is that water requirements have been properly estimated and that if water is scarce, farmers will be encouraged to give preference to monsoon crops and reduce areas sown in the dry season; reducing the canal command area would contradict the project's prime goal of improving social welfare and equity. As to the implementation of physical works, the borrower still envisages completing the Sardar Sarovar project by the year 2000. Madhya Pradesh has begun building the Narmada Sagar dam and plans to complete it in due time. Bonds have been issued to raise funds; more will be issued to satisfy future financial needs.

### The projects today: OED's view

OED reviews the completion reports on all Bank lending operations, and arrives at provisional ratings of operational performance based on the findings of these reports. (See Box 3.) For about 40 percent of completed investment operations, it conducts performance audits, and at the audit stage undertakes its own field work and interviews. This work may lead OED to change its provisional rating of an operation's performance.

Once key uncertainties affecting implementation have been removed, OED plans to audit the economics of the Sardar Sarovar projects. The audits will test the validity of the estimates of social costs and benefits that are included in the completion reports and hence underlie OED's provisional performance ratings.

#### *Provisional performance ratings*

Based on the facts and judgments presented in the PCR, OED's provi-

sional ratings of the Narmada projects are shown in the table. To reach these ratings, OED took account of:

- the delayed but substantial progress on physical structures;
- the improved R&R policies adopted by the states, and the progress being made in resettlement;
- the link between construction and progress on resettlement;
- the view of independent consultants that significant environmental damage has not occurred and is unlikely to occur, provided monitoring and remedial measures are satisfactory;
- the progress being made in implementing the environmental action plan.

To rate the Bank's performance, OED took account of the Bank's failure to follow its own guidelines on:

- involuntary resettlement—at appraisal, little or no consultation with affected villagers, no established state resettlement policies, and inadequate baseline data for responsible planning;
- indigenous peoples—only Gujarat had studies, and no acceptable proposals for resettlement or training;
- environment—preparation studies were too general, and the projects were approved without the necessary government of India forest and environmental clearances.

OED also considered the Bank's strenuous efforts, in light of the findings of the independent review,

### Box 3: OED evaluation method

To evaluate the Bank's completed lending operations, OED evaluators look at several facets of achievement, synthesized in three major ratings: outcome, sustainability of benefits, and institutional development.

*Outcomes:* To assess outcomes, evaluators look at.

- *Relevance:* the degree to which the operation's goals accorded with the country and sectoral assistance strategies and with Bank's thematic goals.
- *Efficacy:* the extent to which the operation actually met its physical, macroeconomic, sectoral, and financial goals.
- *Efficiency* in relation to inputs; to judge this requires a reassessment of costs and implementation times. When benefits can be quantified, the re-estimated rate of return is also calculated.

*Sustainability* measures the extent to which an operation is likely to maintain an acceptable level of net

benefits throughout its economic life. To judge the sustainability of benefits, evaluators look at eight factors—government commitment; the policy environment, institutional and managerial effectiveness; economic, technical, financial, and environmental viability, and beneficiary participation

*Institutional development* is the process of improving a country's ability to make effective use of its human, organizational, and financial resources. Evaluators assess the institutional development progress achieved, or expected to be achieved, as a result of the operation

Some operations may fail on one of these evaluation measures, yet still make worthwhile contributions to development.

To judge the *Bank's performance* in a completed operation, OED assesses the Bank's compliance with policy and operational guidelines and its performance in project identification, appraisal, negotiation, and supervision.

to ensure that R&R and environmental standards would be met. And it noted that through involvement in project appraisal and supervision, the Bank provided significant technical support for the design and construction of the civil works, for concrete quality control and assurance, dam safety, and improved information systems.

### Looking ahead

The project has made substantial progress in civil works. The PCR's expect benefits to accrue between 1995 and 2010, three years later than expected when the projects were appraised. But in OED's view, further delays of two years or more in both the irrigation and energy generation schedules seem likely.

*It is not too late to make the projects a successful development venture.* Based on the facts and assumptions presented in the Bank's project completion reports, the projects would realize an economic return of more than 10 percent when completed. This calculation takes account of the probable costs of R&R and environmental mitigation measures, and allows for a five-year delay in completion of the Narmada Sagar dam upstream. The data and assumptions used are consistent with Indian experience in other projects, and in OED's view they do not overlook any major costs or benefits.

*However, substantial uncertainties remain.* The economic rate of return estimate hinges on several key factors whose outcome is uncertain at this early stage of project implementation. It assumes that the hydrological parameters of the project are firm, that despite delays in completion of the scheme and the associated cost escalations, the scheme will be fully funded and completed, and that the complementary Narmada Sagar dam upstream will be built. Disputes exist as to the final maximum water level in the reservoir (lowering the water level would risk reducing the water flowing to the furthest,

### OED's provisional ratings of the Narmada projects

	<i>Sardar Sarovar dam and power</i>	<i>Water delivery and drainage</i>
Outcome	Marginally satisfactory	Marginally satisfactory
Institutional development	Modest	Substantial
Sustainability	Uncertain	Uncertain
Bank performance	Unsatisfactory	Unsatisfactory

most drought-prone, reaches of the command area), and as to the height of the inlet for the irrigation bypass tunnel (lowering the intake would benefit Gujarat's diversions for irrigation, particularly in drought years, but at the expense of Madhya Pradesh's power generation rights). Uncertainties remain about the financing arrangements for the overall development and especially for the purchase of turbine generators needed for the riverbed powerhouse.

*Satisfactory R&R is key to success.* As the Indian authorities formally reaffirmed in January 1994, dam construction must be synchronized with the R&R program—which has encountered persistent difficulties. The rate of resettlement and rehabilitation has become the key to timely implementation of the civil works. In Gujarat, non-governmental organizations have been usefully involved in the R&R program, but in the other two states, confrontation persists between project authorities and local NGOs. Maharashtra has recently adopted satisfactory policies on R&R, but about half the villages that are to be flooded are not cooperating with the final counting of people or with the administration of R&R arrangements. Madhya Pradesh's rehabilitation grant to landless families and adult sons is less attractive than those of the other states, and its capacity to

implement the R&R program is weaker. An earlier assumption that most of the Madhya Pradesh families to be affected by the dam would move to Gujarat seems unlikely to be fulfilled, so that much more land in MP may need to be procured to compensate them—a process that is likely to be cumbersome. Completion of R&R arrangements for the families affected by the dam will require strengthening implementation capacity in both Maharashtra and Madhya Pradesh.

### Lessons

Many aspects of the Narmada experience confirm findings and lessons from OED's evaluations of other projects. The broad lesson is that the social dimensions of civil works projects need much more attention from both the Bank and its borrower governments. Unless these aspects are mastered, the development enterprise itself will continue to be dogged by public protests and may eventually falter and fail.

#### *Large dams*

Large dams are an important part of economic development. They produce needed public goods, including clean energy and drinking water, and enjoy economies of scale. They can be a principal source of water for irrigated agriculture, which in many

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countries is vital to achieving adequate supplies of food and alleviating poverty.

But investments in large dams need to be prepared thoroughly, appraised rigorously, and implemented effectively. The design and execution of these projects must be sensitive to social and environmental considerations. Their efficacy, efficiency, and sustainability depend on participation and institutional development to ensure effective operation and maintenance and good water management.

Unfavorable experiences with resettlement, and the attendant public outcry, may lead governments to eschew investments in large-scale water storage. This would be unfortunate, as dams can be selected and built so as to be technically, financially, and economically justified as well as socially and environmentally beneficial. (See William Jones, *The World Bank and Irrigation*, A World Bank Operations Evaluation Study, Washington, DC, 1995, forthcoming, and OED Précis No. 52, *Involuntary Resettlement*.)

#### *Resettlement*

Resettlement of people displaced by projects supported by the Bank has always been, and still is, the responsibility of the borrower agency, but all projects that the Bank supports must conform to the Bank's guidelines (see Box 4).

Evaluation lessons on resettlement have been drawn both by OED and a Bank-wide review of resettlement operations. These studies confirm that the Bank's guidelines are appropriate, but their findings emphasize that to apply the guidelines consistently will require large shifts in processes and skills within the Bank, as well as institutional development in India and other developing countries. NGOs have an important continuing role to play

here, both in advocacy and in implementation.

Experience also emphasizes that the role of government, especially at the local level, is crucial. OED's 1993 resettlement study showed that for resettlement programs to succeed, seven factors need to be present: government commitment; a strong implementing agency; clear established policies and guidelines that adequately define eligibility for resettlement assistance; comprehensive planning; a development program for resettlers that will help them re-establish their livelihood; community involvement in planning and implementing resettlement activities; realistic estimates of resettlement costs, and adequate funding. Beyond the project-by-project activities required, the Bank may need to assist borrowers with institutional development before they can deal adequately with resettlement issues.

In the Narmada projects the Bank did not address the institutional limitations for planning and carrying out R&R or—according to the Bank's completion report—the need to empower the borrower and executing agencies to take greater ownership of the R&R process. The projects operated in a difficult context, because while the government of India entered into financial arrangements with the Bank, the states were responsible for executing R&R policies. The alternative of establishing a common authority to take charge of R&R was not considered under the NWDT award, because under the Indian constitution R&R is a state, not a federal, responsibility. The Bank's involvement, the evaluation in the independent review, and a stronger civil society in India have induced significant shifts in social policies related to infrastructure projects. Mastery of R&R issues may yet emerge out of the current painful Narmada experience.

#### *"Quality at entry"*

Evidence from hundreds of projects reviewed by OED confirms the importance of proper preparation of projects before they enter the portfolio. In the Narmada projects, adherence to the Bank's guidelines at the outset could have avoided many of the negative consequences of environmental and R&R requirements, which should have been dealt with during project preparation and appraisal. There are severe limits to an incremental approach, especially when the goals set are optimistic and the borrower's institutional base is weak. For lumpy projects, and especially for projects that stretch the borrower's capacity, it almost always costs more time and money to compensate during project implementation for weaknesses in appraisal. This lesson is not yet consistently applied.

#### *Commitment*

If a borrower is genuinely committed to a task it will take the actions needed to accomplish it. The Bank cannot make up for a government's lack of commitment to a project or component, or for inadequate implementation capacity, by imposing conditions on its loans. Equally, the Bank's operational directives to its staff are no substitute for staff commitment to effective implementation support, rigorous monitoring, or timely use of remedies.

#### *Need for clarity about roles*

The Bank should deliver necessary assistance to the borrower without taking over responsibility for projects and their results. An internal review of lessons from the Narmada projects (May 1993) identified a process by which "the Bank...was seen more and more as the owner of, or at least the major force guiding, the R&R aspects of the projects....the Bank rather than the borrower found itself tagged

as the non-performing party." Clearly the Bank should promptly investigate matters raised by NGOs, or other interested groups or individuals, about ongoing projects, and take them up with the borrower as appropriate. But it should not respond on the borrower's behalf or substitute for the borrower in implementation.

### Influence on the borrower

Over the decade since the projects were approved, Gujarat, Maharashtra, and Madhya Pradesh have consistently improved their policies with respect to resettlement and tribal peoples. Progress has been unequal across the states, but the adoption of the "land for land" compensation principle, in place of cash compensation, which was usually inadequate, is a fundamental change. Provision of at least two hectares of irrigated land to households whose homes are to be inundated, the treatment of landless people and sons (and, in Maharashtra, daughters) over 18 years old as independent households eligible for replacement land, and provision of housing plots and grants, are further major improvements in the compensation package. The need for complete enumeration of oustees and proper planning has been recognized, and the crucial importance of income restoration highlighted. Further, the government's decision to tie the pace of dam construction to the pace of resettlement—and evidence that this is indeed happening—represents a significant reordering of priorities since the projects were designed.

### Influence on the Bank

The Narmada projects have had a far-reaching influence on the Bank's understanding of the difficulties of achieving lasting development, on its approaches to portfolio management, and on its openness to dialogue on policies and projects. Several of the impli-

### Box 4: Resettlement: guidelines and recommendations

In 1980 the Bank became the first international organization to establish guidelines on involuntary resettlement in the projects it supports. The guidelines were broadened in 1990 (*Involuntary Resettlement, Operational Directive 4.30, June 1990*). Both the 1980 and 1990 guidelines call for:

- Adequate compensation for lost assets.
- Assistance with relocation and support during the transition period.
- Assistance in re-establishing former living standards.

Guidelines for the protection of indigenous people were first issued in 1982; updated guidelines, introduced in 1991, require consultation with indigenous people.

#### *Bank's resettlement review*

Prompted by the Narmada experience, the Bank reviewed the resettlement aspects of all projects active in 1986-93. This review found that:

- R&R should be considered right from the outset of project identification.
- Modest redesign can dramatically lower the numbers needing R&R.

- Satisfactory R&R is easier when national policies are supportive.
- Detailed surveys, community consultation and participation, and effective planning are keys to success. (See *Resettlement and Development*, Washington DC: World Bank, April 1994.)

#### *OED's review of early experience with resettlement*

An OED review of resettlement components in 49 completed projects found Bank guidelines broadly appropriate but poorly applied. It recommended:

- Give rigorous attention to minimizing the number of people to be displaced by Bank-supported projects.
- Ensure that people who stand to lose assets will be fairly compensated.
- Make much greater effort to restore incomes, this calls for better measurement of initial income levels and monitoring during implementation.
- Ensure costs are realistically estimated and will be adequately funded. (See OED Precís No. 52, *Involuntary Resettlement*.)

cations of the Narmada experience resonated with recommendations made by the Bank's Portfolio Management Task Force (see *Effective Implementation: Key to Development Impact*, World Bank, November 1992), and have been incorporated into the "Next Steps" action plan that the Bank is now implementing to improve the management of its portfolio.

#### *Consultation and participation*

The independent review of the Narmada projects attributed much of the mishandling of resettlement and environmental questions to a

lack of consultation with area residents. Initiatives now underway as part of the Next Steps plan include more systematic analysis of how different constituencies will be affected by proposed new lending operations, and greater involvement of nongovernmental agencies in designing, preparing, and implementing projects. The Bank is experimenting with new approaches in participatory development and identifying practices that can be applied widely in its operations. Many projects in India now have innovative and promising participatory elements. (See *Working with NGOs: A Practical*

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*Guide to Operational Collaboration between the World Bank and Nongovernmental Organizations*, Operations Policy Department, Washington, DC: World Bank, March 1995.)

#### *Skill mix*

The mix of skills needed for development financing is changing as participatory approaches are mainstreamed and as awareness of environmental issues grows. In the Narmada projects, the civil works for the dam and irrigation system were the main concern of Bank staff in project design and appraisal, and continued to be so during the early stages of implementation. Many OED evaluations suggest the need to ensure that projects are appraised by sociologists and anthropologists along with economists and engineers. As part of the Next Steps plan the Bank has begun to augment the skills and status of its staff in institution building, public sector management, and social sciences other than economics.

#### *Inspection panel*

Experience with the Narmada projects contributed to the Bank's decision to establish an independent inspection panel. This panel, established in September 1994, investigates claims by affected par-

ties that the Bank has failed to adhere to its operational policies and procedures in the design, appraisal, and/or implementation of its ongoing or new operations. The panel consists of three highly qualified individuals appointed by the executive directors; they come from outside the Bank and are from different countries. (See Ibrahim Shihata, *The World Bank's Inspection Panel*, New York: Oxford University Press, 1994.)

#### **Discussion by CODE**

*The Committee on Development Effectiveness (CODE) of the Bank's Board of executive directors discussed the completion reports on the Sardar Sarovar projects on April 28, 1995. Some members expressed concern that, although these projects were approved a decade ago, the Bank still handles human and environmental aspects of development less successfully than engineering and economic aspects. Members emphasized the following lessons:*

- *government "ownership" should be assured, and social and environmental assessments should be completed, before a loan agreement is signed;*
- *staff should seek to discuss and resolve differences of opinion with borrowers as far as possible before project*

*implementation, rather than assuming that problems will be solved once a project is underway;*

- *participatory design, piloting, and mid-term reviews may all help to improve the performance of large projects.*

*Some directors expressed concern that the R&R aspect of several projects of the Sardar Sarovar generation may be deeply deficient, though they recognized the Bank's efforts to apply lessons and come to grips with R&R issues in newer operations.*

**Decisions:** *CODE, assisted by the Bank's South Asia Region, will monitor developments in the Narmada basin. The committee will also use its monitoring capacity, through the full Board, to ensure that Bank staff are applying the lessons of Narmada to other operations. It requested OED to re-examine the economics of the Sardar Sarovar projects, and later to prepare an impact evaluation, timing the work so as to ensure reliable re-estimation of economic and social benefits and costs. In view of the widespread interest in the projects within the development community, the committee requested preparation of this Précis, while acknowledging that the projects are still in midstream and that judgments about them may well change after audit and again after impact evaluation.*

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