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# THE WORLD BANK'S INDEPENDENT REVIEW OF INDIA'S SARDAR SAROVAR PROJECTS

Thomas R. Berger\*

## INTRODUCTION

In 1991, the World Bank established for the first time an Independent Review, a panel to evaluate one of its projects.<sup>1</sup> The Independent Review was organized to examine the Sardar Sarovar Projects (Sardar Sarovar) in India.<sup>2</sup> Bradford Morse, former head of the United Nations Development Program, was appointed Chairman of the Independent Review in June 1991. The Terms of Reference by which the Independent Review would evaluate the project were set forth in March 1991.<sup>3</sup>

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\* Thomas R. Berger was appointed Deputy Chairman of the Independent Review of the Sardar Sarovar Projects in September 1991 by the World Bank. Mr. Berger headed the British Columbia Commission on Family and Children's Law, 1973-1974; the Mackenzie Valley Pipeline Inquiry, 1974-1977; the Alaska Native Review Commission, 1983-1985; and served on the Supreme Court of British Columbia, 1971-1983. Mr. Berger would like to express the Independent Review's appreciation for the contribution of Donald J. Gamble, Chief of Staff and Senior Advisor, Environment, for the Independent Review, and Hugh Brody, Senior Advisor, Resettlement and Rehabilitation Assessment for the Review.

1. This Essay is primarily based upon material contained in SARDAR SAROVAR, THE REPORT OF THE INDEPENDENT REVIEW (1992) [hereinafter INDEPENDENT REVIEW]. See *id.* at xi-xxv (reproducing letter to World Bank President Lewis T. Preston documenting World Bank participation in the Sardar Sarovar Projects and the genesis of the Independent Review). See generally Molly Moore, *India's Lifeline or Man-Made Disaster?*, WASH. POST, Aug. 24, 1993, at A12 (giving a general history of the dam and canal project, and discussing some of the projects' problems); *Left, Right, Center Rage over Narmada Project*, FIN. TIMES, Aug. 16, 1993 (reporting on the tension between anti-dam activists and local state officials); *India Says It Will Review Narmada Dam Project*, GAZETTE (Montreal), June 26, 1993, at I6.

2. See INDEPENDENT REVIEW, *supra* note 1, at 9-10 (stating that the Independent Review developed out of controversy over whether India and the governments of Gujarat, Maharashtra, and Madhya Pradesh have complied with resettlement, rehabilitation, and environmental impact mitigation policies implicated in the Sardar Sarovar Projects).

3. See INDEPENDENT REVIEW, *supra* note 1, at 359-60 (setting forth the Terms

The Government of India asserts that Sardar Sarovar is the largest water project ever undertaken. The venture includes the construction of a high dam on the Narmada River, the creation of a reservoir submerging land in the states of Gujarat, Maharashtra, and Madhya Pradesh, and an extensive canal and irrigation system in Gujarat.

Since gaining independence in 1950, India has been the world's most prolific dam builder. Many of the dams constructed have been financed in part by the World Bank. In recent years, controversy has surfaced over the construction of some of these projects. Perhaps the most controversial of these is the Sardar Sarovar dam on the Narmada River. After extensive planning, construction of the dam and canal system began in 1987. Soon afterwards, the Sardar Sarovar became the focus of debate over the importance of industrial progress, as opposed to the need to respect human rights and protect the environment. In light of these considerations, the mandate of the Independent Review was essentially twofold. First, the Independent Review was charged with the responsibility of assessing the measures taken to resettle and rehabilitate those persons who would be affected by the construction of the dam, reservoir, and canal system. Second, the Independent Review was established to evaluate the measures designed to ameliorate the impact of Sardar Sarovar on the environment.

While conscious of Indian sovereignty, the Independent Review insisted upon candid and unhindered communication — including the ability to receive written submissions openly that pertained to the projects. The Independent Review also asserted its right to travel freely and maintain complete editorial control over its final report. To secure this end, the Independent Review insisted upon a separate budget with sufficient funds both to allow the Independent Review to publish the final report publicly, and to assure its circulation in India and among those individuals who made submissions.

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of Reference for evaluation of the dam and canal project by the Independent Review).

## I. HISTORY OF THE SARDAR SAROVAR PROJECTS

In both developed and developing countries, dam construction and other large-scale projects have inundated millions of hectares of land, raising serious questions about human and environmental repercussions of the intentional flooding. Often the areas affected are tribal lands and territory belonging to rural peasants. The development of the Sardar Sarovar, for example, has sharpened the focus of worldwide concern, in part because of the scale of the venture. Another aspect drawing attention to Sardar Sarovar is the resistance of the people on the periphery of development, whose ancestral lands are being expropriated for what some believe to be for the benefit of the majority. Indeed, the increasing willingness of these people to speak on their own behalf has placed Sardar Sarovar squarely in the public eye.

The Sardar Sarovar dam is situated about 180 kilometers from the Arabian Sea in northwestern India. Upon completion, the dam will impound water to a full reservoir level of 455 feet and submerge approximately 37,000 hectares of land in the three states of Gujarat, Maharashtra, and Madhya Pradesh. The dam, along with planned construction developments farther upstream, is designed to divert 9.5 million acre feet of water from the Narmada River into a canal and irrigation system, delivering drinking water to drought-prone areas of Gujarat. The canal itself, the biggest in the world in terms of its capacity, will extend 450 kilometers to the border between Gujarat and Rajasthan. The main canal is 250 meters wide at its head and 100 meters wide at the Rajasthan border. The aggregate length of the distribution network is 75,000 kilometers. Overall, the canal will require approximately 80,000 hectares of land, more than twice as much land as the area to be submerged.

The impact of the Sardar Sarovar extends over an immense area and affects a large number of individuals, particularly tribal people. At least 100,000 people living in 245 villages are within the area designated for submergence. In Gujarat and Maharashtra, almost all of the people are tribal members. Similarly, thousands of tribal people and numerous Hindu caste villages populate the area of Madhya Pradesh to be submerged. The inhabitants of the Hindu villages engage in conventional agriculture that will be affected by submergence. Approximately 140,000 families are likely to be disrupted by the construction of the canal and irrigation system, while thousands of individuals living below the dam will be significantly affected.

The Sardar Sarovar has therefore come under scrutiny at a time of global awakening to the consequences of large-scale projects in rural and remote areas, especially those areas inhabited by indigenous or tribal people. Consequently, Sardar Sarovar has become a symbol in India and other countries. Some view the dam and canal project as representing economic development that will bring enormous benefits to millions; others regard it as an imposition that will culturally and economically impoverish hundreds of thousands of people while irrevocably altering, if not destroying, the natural environment that the Narmada River supports.

Proponents of Sardar Sarovar, who refer to the venture as the "lifeline of Gujarat," emphasize that the project will bring drinking water to over 40 million people, irrigation to 1.8 million hectares of land, and hydro-electric power. The proponents suggest that these tangible benefits should be weighed against the large number of people who may be adversely affected. In doing so, they note that the majority of displacement will harm tribal people whose lands consist of steep, rocky ground, and degraded forests. The land that will be lost, they say, is of marginal value. Thus, proponents of Sardar Sarovar find sufficient justification for the enterprise by balancing the number of people who will benefit from its completion against those individuals who will be uprooted.

Opponents of the Sardar Sarovar argue that the plan's proposed benefits will never materialize. They contend that adequate drinking water will never reach drought-prone areas, while the irrigation benefits that the Sardar Sarovar is supposed to produce have been vastly overestimated. Opponents also argue that adequate measures are not being taken to resettle families displaced by the dam and canal project, and that rehabilitation of the families as planned cannot succeed. Finally, they suggest that the environmental impact of the Sardar Sarovar will be far greater than predicted.

As a point of reference, in 1985 the World Bank entered into credit and loan agreements with India and the states of Gujarat, Maharashtra, and Madhya Pradesh to help finance the construction of the Sardar Sarovar dam and canal.<sup>4</sup> Under the agreements, the World Bank has accorded only those persons whose villages will be affected by submergence as "project-affected" individuals entitled to resettlement and rehabilitation.

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4. See INDEPENDENT REVIEW, *supra* note 1, at xxi (noting that the World Bank extended credit and loan funding for Sardar Sarovar in 1985 without assessing the environmental implications of the project).

The first task of the Independent Review was to consider the measures being taken for the resettlement and rehabilitation of "project-affected" people. In doing so, the Independent Review also considered "canal-affected persons." The Terms of Reference of the Independent Review recognized such persons "displaced/affected by the reservoir and infrastructure." The President of the World Bank, Mr. Barber Conable, asked the Independent Review to consider, under the Terms of Reference, the status of resettlement and compensation for "canal-affected persons." On the environmental side, the Terms of Reference required consideration of the measures being taken to ameliorate the impact of "all aspects of the Projects."

The World Bank's decision to establish the Independent Review is unprecedented. The World Bank provided the Independent Review with all necessary documents, engaged in candid discussions, and provided the latitude required to complete the panel's investigation. An international aid organization has never before established an investigatory body with a mandate as sweeping as that of the Independent Review, no matter how controversial. Further, the Independent Review also enjoyed the cooperation of the governments of India, Gujarat, Maharashtra, and Madhya Pradesh; of non-governmental organizations; and of people affected by the Sardar Sarovar Projects.

## II. MODUS OPERANDI OF THE INDEPENDENT REVIEW

The Independent Review emphasized the autonomous nature of the investigation throughout the visit to India. Though the Terms of Reference were determined by the President of the World Bank, none of the Independent Review members worked or had worked for that institution in the past or at present. The Independent Review was determined to travel wherever necessary and to communicate with whomever the investigators deemed appropriate. This independence was integral to the entire *modus operandi*. While the World Bank provided financial support, the Independent Review designed and administered its own budget and retained complete editorial control over the final report.

In the course of the investigation, the Independent Review travelled throughout the Narmada Valley, including the dam site, the submergence and catchment areas, territory downstream and around the command area, and the route of the canal. Visits were made to Kutchch and Saurashtra, where recurring drought conditions have caused great personal hardship.

The Independent Review met frequently with officials from the government of India, including the Minister of Water Resources, his deputy,

and other Union Government Ministries officials. Meetings were also arranged with the governments of Gujarat, Maharashtra, and Madhya Pradesh, as well as the Narmada Control Authority, the Narmada Valley Development Authority, and the Sardar Sarovar Narmada Nigam Limited. All of the officials of the union government, state government, and relevant agencies cooperated fully and provided whatever documents were requested. The staff of the World Bank, located both in Washington, D.C. and India, furnished access to Bank files. The chief minister of Gujarat, members of the Gujarat legislature, members of parliament from Gujarat, and the Gujarat business community emphasized the benefits the Sardar Sarovar is expected to bring to that state. Similarly, the chief minister of Madhya Pradesh and the chief minister of Maharashtra, as well as other officials from these states, also stressed the benefits that the dam and canal would bring. The Independent Review toured locations and talked with the non-governmental organizations (NGOs) Arch Vahini and Anand Niketan Ashram, both of which have worked tirelessly to help with resettlement of displaced persons.

Many critics challenged the fundamental assumptions upon which the Sardar Sarovar is based. Others proposed stopping the construction of the dam altogether. Opponents not only argued against what they regard as flaws in the plan but also questioned the advisability of proceeding at all. This view was frequently expressed by Narmada Bachao Andolan, an Indian NGO which represents many people of the Narmada Valley. The Independent Review met with eminent persons on both sides of the issue in New Delhi, Bombay, Gandhinagar, Ahmedabad, Baroda, Bhopal, and Indore.

Ultimately, the Independent Review visited sixty-five tribal and peasant villages throughout the Narmada Valley and command area, allowing the Independent Review to listen to local inhabitants as well as people from surrounding locales. During the tour, an additional sixty villages were contacted. Twenty of the villages visited were relocation sites. At these sites, and at meetings with people affected by the project or "oustees" at Kevadia, the Independent Review listened to people from another thirty relocation sites.

Government officials often accompanied the Independent Review and provided translators. In many places, however, NGOs have easier access than governments or World Bank representatives. Thus, the Independent Review traveled with NGOs to many villages where World Bank missions had previously been unable to travel. In turn, representatives of Arch Vahini, Narmada Bachao Andolan, and Anand Niketan Ashram, often accompanied the Independent Review. In India there is a strong

tradition of participation of NGOs in public life, and the final report frequently refers to the work of the NGOs. In Gujarat, the birthplace of Mahatma Gandhi, this tradition is especially pronounced.

The contributions made by Arch Vahini, Narmada Bachao Andolan, and Anand Niketan Ashram draw on the Indian tradition of community and spiritual leadership. The Independent Review found that, in the finest traditions of India and Indian democracy, there was uninhibited discussion of the Sardar Sarovar in the press and elsewhere, which generated considerable intellectual ferment. The Independent Review spent time with academics, retired public servants, and others who were eager to provide information and argument on both sides of the issue. Indeed, the Independent Review challenged interested people to make formal, written submissions to which more careful consideration could be paid. The panel commissioned several studies and obtained expert advice on a number of issues. Ultimately, the influence that this open and free discussion of the Sardar Sarovar had on the investigation was immense.

The knowledge of the Independent Review, therefore, was derived from several sources including information obtained during meetings in India, research data and material from government and World Bank files, submissions written specifically for the Independent Review's examination, and the on-site evaluation of tribal and peasant villages in the Narmada Valley and in the relocation sites in Gujarat and Maharashtra. As of the time of the investigation, no relocation sites existed in Madhya Pradesh to which anyone had been resettled.

The draft report of the Independent Review was submitted to the World Bank on April 1, 1992. In response, the World Bank prepared an extensive and useful critique of the analysis and findings. The Independent Review then met for two days in Washington, D.C. with Mr. Joseph Wood, the World Bank's Vice-President for Asia, and with a number of other World Bank staff and technical people. The discussions were frank and the Independent Review was prepared to modify the report wherever the World Bank noted a mistake in fact or analysis. Given that the Independent Review was well acquainted with World Bank files and with their point of view, however, few changes were actually required in what became known as the Independent Review's final report.

### III. THE NORMS OF HUMAN RIGHTS: RESETTLEMENT AND REHABILITATION

Since World War II, industrial and developing countries have built high dams in rural, forest, and frontier regions. Usually this development



has resulted in incursions on the lands of indigenous and tribal people. The special situation of these groups first gave rise to measures to protect persons subject to involuntary resettlement. The earliest international recognition of involuntary resettlement occurred in 1957. In that year the International Labour Organisation (ILO) passed Convention 107, which required that indigenous or tribal oustee families be "provided with lands of quality at least equal to that of the lands previously occupied by them, suitable to provide for their present needs and future development."<sup>5</sup> India subsequently ratified the convention on September 29, 1958,<sup>6</sup> (neither Canada nor the United States has ratified it yet).

In 1980, the World Bank adopted for the first time a general resettlement policy.<sup>7</sup> Indeed, the World Bank made clear in the policy that there must not only be resettlement but also rehabilitation. Therefore, the policy provided that, upon resettlement, displaced persons should "regain at least their previous standard of living."<sup>8</sup> Such persons were to include those displaced by dams and canals. Moreover, in 1982, the World Bank developed a policy specifically designed for tribal people.<sup>9</sup> The policy provided that the customary usage of tribal land should be respected, and required that the tribal people should only be displaced when the borrowing country can safeguard the integrity and well-being of the tribal people effectively through regulations or other measures.

As required by the Terms of Reference, the Independent Review investigated World Bank policy after 1985, the year of the credit and loan agreements. In 1990 and 1991, the World Bank issued two operational directives on involuntary resettlement: Directive 4.30 on involuntary resettlement generally<sup>10</sup> and Directive 4.20 on resettlement of indigenous peoples in particular.<sup>11</sup> The two directives represent the culmi-

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5. See INDEPENDENT REVIEW, *supra* note 1, at 18 (quoting the Convention Concerning the Protection and Integration of Indigenous and Other Tribal and Semi-Tribal Populations in Independent Countries of 1957).

6. INDEPENDENT REVIEW, *supra* note 1, at 18.

7. WORLD BANK OPERATIONAL MANUAL STATEMENT NO. 2.333: SOCIAL ISSUES ASSOCIATED WITH INVOLUNTARY RESETTLEMENT IN BANK-FINANCED PROJECTS (1980), reprinted in INDEPENDENT REVIEW, *supra* note 1, at 23.

8. INDEPENDENT REVIEW, *supra* note 1, at 23.

9. WORLD BANK OPERATIONAL MANUAL STATEMENT NO. 2.34: TRIBAL PEOPLE IN BANK-FINANCED PROJECTS (1992), reprinted in INDEPENDENT REVIEW, *supra* note 1, at 26.

10. WORLD BANK OPERATIONAL DIRECTIVE 4.30: INVOLUNTARY RESETTLEMENT (1990), reprinted in INDEPENDENT REVIEW, *supra* note 1, at 32-35.

11. WORLD BANK OPERATIONAL DIRECTIVE 4.20: INDIGENOUS PEOPLES (1991), reprinted in INDEPENDENT REVIEW, *supra* note 1, at 35-37.

nation of a decade of policy development. Moreover, the World Bank in the directives set the highest standards of any aid or lending organization in the world for mitigating adverse consequences to human well-being caused by involuntary resettlement. At the same time, the Independent Review was being formed and had to bear in mind that these standards were adopted by the World Bank in 1990 and 1991, over five years after the credit and loan agreements had been signed.

These policy changes at the World Bank reflect the world-wide development of human rights concepts. These changes constitute a recognition that large-scale projects, especially in rural, wilderness and frontier areas, may displace people just as war and natural calamities do. The policy changes focus on people who are being displaced by the advance of development, and require that in any project the human rights of the oustees must be respected. According to the ILO, these rights should not be impaired on grounds of national sovereignty or national economic interest. While such considerations may justify a project; they do not justify the nullification of these basic human rights.

There are more than 60 million tribal people in India, many of whom are dependent on land they and their ancestors have cultivated for generations. In 1987 the United Nations World Commission on Environment and Development (the Brundtland Commission) addressed the need for respect for indigenous and tribal land and resource rights. The Brundtland Commission said that “[t]he starting point for a just and humane policy for such groups is the recognition and protection of their traditional rights to land and other resources that sustain their way of life — rights they may define in terms that do not fit into standard legal systems.”<sup>12</sup>

Tribal people will make up the majority of the people ousted by the construction of the Sardar Sarovar dam. Most of these tribal people live in the forests, raise crops and graze cattle. Usually they have no formal title to the land, even though they may have lived there for generations, they are called “encroachers.” The state governments of Maharashtra and Madhya Pradesh took the position that the encroachers were not entitled to be resettled as farmers. According to Maharashtra and Madhya Pradesh state policy on resettlement, “encroachers” would be treated as landless labourers. This designation meant that they would be uprooted from their lands and resettled without sufficient land to continue farming. Although Gujarat adopted a policy of full benefits for tribal people, only a small proportion of the displaced persons live in Gujarat.

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12. INDEPENDENT REVIEW, *supra* note 1, at 212.

Central to the World Bank's credit and loan agreements with India and the three affected states is the objective requiring that *all* displaced persons be empowered, as a result of resettlement and rehabilitation measures taken on their behalf, to "*improve or at least regain* the standard of living they were enjoying prior to their displacement"<sup>13</sup> [emphasis added]. The result of classifying encroachers as landless oustees means that people who are in fact cultivating land they regard as their own will become landless laborers. This treatment of encroachers does not meet the norms for resettlement and rehabilitation defined in the ILO standard or the standard required by World Bank policy and the credit and loan agreements. The World Bank, however, did not require compliance with its policy or agreements. Instead, the World Bank followed what it called an "incremental" policy, never insisting on compliance with conditions laid down in the credit and loan agreements until it was too late to secure such compliance.

With respect to the canal, the World Bank failed even to obtain a covenant in its agreement with Gujarat to require compliance with World Bank policy. Construction of the canal and irrigation system will affect as many as 140,000 families, of whom perhaps 13,000 will lose most or all of their land. Although the numbers of people who will lose land is an estimate, those who do lose land to the canal and irrigation system are offered compensation under the *Land Acquisition Act* of 1894.<sup>14</sup> The acquisition of land under the *Land Acquisition Act*, though, has often meant that farmers who lose their land are compensated at rates substantially lower than replacement costs. Thus, villagers living in the path of the canal have not been provided with resettlement benefits as World Bank policy has required.

In the case of the Sardar Sarovar, India and the three affected states bound themselves to meet stricter standards for resettlement and rehabilitation than any the governments had agreed to in the past. India had ratified Convention 107 in 1958. Furthermore, India and the three states signed the 1985 credit and loan agreements with the World Bank that contain explicit standards for resettlement and rehabilitation. Despite formal agreement to comply with these standards, though, India did not comply with the norms<sup>15</sup>. In some cases, involuntary resettlement result-

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13. INDEPENDENT REVIEW, *supra* note 1, at 29 (quoting terms from the World Bank's 1985 Development Credit Agreement with the Government of India).

14. INDEPENDENT REVIEW, *supra* note 1, at 31.

15. See INDEPENDENT REVIEW, *supra* note 1, at 19 (discussing the award of the Narmada Water Disputes Tribunal, 1979, binding on India and the states of Gujarat,

ing from the Sardar Sarovar offended recognized norms of human rights. This result is ironic, given that both India and the World Bank have been in the forefront of efforts to secure human rights.

#### IV. ENVIRONMENTAL PROTECTION

In 1972, after the United Nations Conference on the Human Environment, a new consciousness of environmental issues emerged. In India, as elsewhere in the 1970s and 1980s, this new consciousness was reflected in new environmental laws, guidelines, and practices. India lacked a national policy in the field of resettlement and rehabilitation primarily because the field is regarded as a state responsibility. In the environmental field, however, the Government of India has developed a comprehensive structure of policies for environmental protection and assessment of environmental impact.

Despite this structure of policies, the history of the environmental aspects of the Sardar Sarovar is a history of non-compliance. Not until 1987 did India's Ministry of Environment and Forests give a conditional environmental clearance for the dam and canal project. The clearance provided that instead of completing environmental impact studies before approval of the Sardar Sarovar, the studies would be done *pari passu*, that is, concurrently with construction. This approach undermines the very basis for environmental planning. Although the conditional environmental clearance did contain a schedule for the completion of the environmental impact studies by 1989, most of the studies were not completed by that year, many have still not been completed.

Without proper data and studies, proper assessments of environmental impact could not be made and effective ameliorative measures could not be developed. Therefore, the Independent Review was limited in its conclusions, although several environmental issues were analyzed. First, significant discrepancies in the hydrological data and analyses indicated that the Sardar Sarovar will not perform as planned: no realistic operational analysis of the project upon which to base an impact assessment had been done. The backwater effect of sedimentation upstream of the dam had been neglected by the officials. The Independent Review found that the backwater effect could mean a rapid, continuing, and cumulative rise in water level in the river above the reservoir, which could cause flooding to extensive areas of densely populated farmland. The human and environmental impacts of such an event could well be severe.

Second, the Independent Review found that no assessment of downstream impact had been done. The implications of the Sardar Sarovar for the geomorphology of the lower reaches of the river and its estuary, and for the fishery and the people living in the region were unknown. Available information indicates that the impacts will be serious. The Hilsa fishery, for example, the largest on the west coast and on which thousands of people depend, will suffer severe losses or be eliminated completely. The current measures proposed to mitigate the problem are inadequate.

Third, the Independent Review found defects in the command area. Although comprehensive information was unavailable, the Independent Review concluded that there are likely to be serious problems with waterlogging and salinity. Assumptions used in design of the canal and irrigation network, and on the development of mitigative measures, are questionable. When taken together, the problems that will arise in the command area will be quite similar to those identified by the World Bank in many other irrigation projects in its 1991 India Irrigation Sector Review.<sup>16</sup>

As indicated earlier, the World Bank followed what it described as an incremental strategy in an attempt to secure compliance with its resettlement policies. India did much the same in its adoption of the *pari passu* principle with regard to environmental issues. The Independent Review found, however, that these approaches had failed to achieve their objectives. Moreover, in the Sardar Sarovar Projects, these approaches signified that these crucial matters, resettlement and environment, are of only secondary importance to the Government of India.

## V. RECOMMENDATIONS

The Independent Review was well aware of the scale of the development task facing India, of the importance India places on irrigation in increasing production in the agricultural sector, and of the long-standing partnership between India and the World Bank in this endeavor. Because the Terms of Reference were specific, however, the Independent Review was required to consider the World Bank's policies, India's environmental regime, and the credit and loan agreements, and to make critical assessments of them.

Decisions as to the future of the Sardar Sarovar and the World Bank's participation in the venture are within the exclusive domain of

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16. INDEPENDENT REVIEW, *supra* note 1, at xxii.

India and the World Bank. Successful implementation of the enterprise, however, requires measures that go directly to resolving problems faced thus far, including the uncertainties of hydrology, the upstream impact, the command area issues, the downstream impact, human and ecological well-being, as well as the deficiencies in resettlement policy and implementation in each of the three states affected. None of these issues can be ignored.

The Independent Review concluded that the necessary studies must be done and that the data must be made available for informed decision-making before further construction takes place. Little can be achieved while construction continues. The World Bank should take a step back so that the possibility of making sound decisions will not be further compromised.

A step back would afford an opportunity to design the kinds of human and environmental impact assessments that are still needed. A step back would permit the assessment of data in order to consider what modifications of the dam and canal project might be necessary.

The human and environmental consequences of the Sardar Sarovar have not been properly studied. The engineering, design, and operation of the plan would also profit from further analysis. Any reconsideration of the venture should include an acknowledgement of the failure of the World Bank's strategy of incrementalism. It is premature, however, to compile a series of recommendations on implementation when the flaws in the plan are obvious.

The Terms of Reference provided that the Independent Review's assessment should include, as appropriate, recommendations for improvement of implementation. The absence of proper impact assessments and the paucity of undisputed data, however, limited the Independent Review's ability to make project-specific recommendations of the kind contemplated by the Terms of Reference. These recommendations, therefore, are limited to the Kevadia Villagers (the first displaced persons), the canal oustees, downstream policy, and the protection of public health. These recommendations should be carried through regardless of the fate of the projects.<sup>17</sup>

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17. INDEPENDENT REVIEW, *supra* note 1, at 349-52. Specific recommendations were as follows: 1) The people of the six villages affected by construction and development of Kevadia Colony were not appropriately and adequately compensated. *Id.* at 350. The World Bank failed to ensure that such compensation as required by the 1985 agreements. *Id.* The World Bank should require India to provide land for the families of the six villages, with an adjustment for cash compensation received in the

The Sardar Sarovar is beset by profound difficulties. These difficulties have their genesis in the earliest phase of the World Bank's involvement in the venture, as they turn on the absence of an adequate data base and failure to consult with the people whose lives and environment were and continue to be affected. People living in the villages and depending on the resources of the Narmada Valley should have played a central part in determining the project's impact. Both their knowledge and their vulnerabilities are integral to any understanding of what is at issue. Failure to consult has fueled intense opposition to the project, which has itself become a serious obstacle to design and implementation of mitigative measures. Several factors, including absence of adequate data, failure of consultation, and hostility towards the dam and canal plan in the Narmada Valley, had a bearing on every aspect of implementation. As the Terms of Reference requested recommendations for measures to improve implementation, the Independent Review stated that the essential condition was that these underlying difficulties be addressed.

Whatever decisions the World Bank makes about its role in the Sardar Sarovar, it must bear in mind the critical importance of consultation with the people of the Narmada Valley and along the route of the canal. Such consultation would be in accord with the Brundtland Commission, which said that tribal people must be given a decisive voice regarding resource policy in their lands. Indeed, non-tribal groups must be given the same opportunity to participate in policy formulation.<sup>18</sup>

Perfect justice cannot be expected in an imperfect world. There is no doubt that in the national interest, people can be required to give up their homes and to resettle. India, however, in conformity with the development of international standards of human rights, has subscribed to

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interim were appropriate. *Id.* 2) The World Bank should use its authority to ensure that Gujarat provides resettlement benefits to persons affected by the canal, especially those farmers who are rendered marginal or landless. *Id.* 3) The existing threat from malaria within the command area is serious. *Id.* at 353. The plan was designed and executed without appropriate safeguards. *Id.* The failure to adopt measures to reduce the likelihood of the spread of malaria illustrates the breakdown between assurances offered by the World Bank and India and the reality on the ground. *Id.* The World Bank should use its authority to ensure that preventive measures are taken as a matter of urgency to address the public health problems posed by water-borne diseases in the dam and canal area. *Id.*

18. See INDEPENDENT REVIEW, *supra* note 1, at 211 (quoting Prime Minister Rajiv Gandhi's statement to the United Nations on the adoption by the General Assembly of the Brundtland Commission, "The search for the right answers must go on relentlessly. It is a worldwide endeavour to which India pledges its unstinting support").

certain minimum conditions that must be observed, even when the national interest is involved. The international standards reflect the inalienable human rights of the displaced persons.

The Independent Review did not insist upon an unattainable standard in environmental impact assessment and mitigation. To construct the Sardar Sarovar, India has availed itself of world-class engineering technology. The country should not settle for less than adequate standards in the application of social and environmental science. The eleventh principle of the Rio Declaration presented to the 1992 United Nations Conference on Environment and Development states that standards of some countries may be inappropriate, imposing unjustified economic and social burdens on other countries, particularly developing countries. The environmental standards for the Sardar Sarovar, however, were established by India itself. On the resettlement side, standards were determined by international covenants to which India had subscribed and by the credit and loan agreements signed by India and the three states.

### CONCLUSION

The Independent Review felt obliged to illuminate the apparent flaws in the Sardar Sarovar Projects. These problems are not only found in India, though, or confined to the Sardar Sarovar. The fragile assumptions which have supported this project can be found elsewhere. Failure to consider the human rights of displaced persons and failure to consider environmental impacts occur in the development of large-scale projects in both developed and developing countries.

Experience worldwide, in developed as well as developing countries, has shown that by factoring in and allowing for human and environmental considerations at the outset, projects can be substantially improved. To be effective, resettlement and environmental planning must be integrated into the design of projects; otherwise, these issues often pose costly and burdensome problems at a later stage.

If the human rights obligations identified by the International Labour Organisation's Convention 107 and in World Bank policy are acknowledged and respected; if the commitment to the environment is real; and if these are properly integrated into project design at the outset; more effective and equitable development will ensue. Some believe that these requirements make it more difficult, often more costly, to build large-scale projects like Sardar Sarovar. This belief implies that human and environmental costs are to be heavily discounted in project planning and execution. Hard lessons from the past show that this is an unacceptable belief. In some cases alternatives to projects that cause compulsory relo-



cation on a large scale or severe environmental impact may have to be sought.

The Independent Review found it impossible to separate its assessment of resettlement and rehabilitation and environmental protection from a consideration of the Sardar Sarovar Projects as a whole. The issues of human and environmental impact bear on virtually every aspect of large-scale development projects. Unless a project can be carried out in accordance with existing norms of human rights and environmental protection, norms espoused and endorsed by both the World Bank and many borrower countries, the project ought not to proceed.

The World Bank must ensure that the principles giving priority to resettlement and environmental protection are faithfully observed in projects it chooses to support. This commitment is the only basis for achievement of the goal now shared by all: truly sustainable development.