

**MAHESHWAR HYDROELECTRIC PROJECT:**  
**Resettlement and Rehabilitation**  
**An Independent Review**  
**Conducted for the**  
**Ministry of Economic Cooperation and Development (BMZ)**  
**Government of Germany**

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**Report**

**Annexes**

- 1 Background of Project
- 2 Documents Consulted
- 3 Excerpt from Meetings
- 4 Provisions of R&R Policy
- 5 Issues Raised
- 6 Environmental Issues
- 7 Schedule of Review
- 8 Map

**Attachments**

- 1 GoMP Policy on Resettlement and Rehabilitation
- 2 Clearance Letter from MoEF
- 3 National Commission on Women Report
- 4 Tata Institute of Social Sciences: Conclusions
- 5 Narmada Task Force Report
- 6 MPEB Report on Land Purchases

**Acronyms**

**June 15, 2000**

## **MAHESHWAR HYDROELECTRIC PROJECT: Resettlement and Rehabilitation**

### **(1) Scope of the Mission**

(1.1) The terms of reference include assessments of: (1) The scale of required resettlement and the scope of impacts on the local population; (b) Plans and offers concerning compensation and resettlement measures made by the official authorities and relevant bodies; expectations concerning implementation of these measures; (c) Adequacy of planned and expected measures, taking into account accepted international standards; (d) Participation of affected people, response to compensation and resettlement schemes, and the development benefits for affected people. Related issues such as the review of alternative options, development effectiveness, and environmental impacts are not seen as central to the mission but can be taken up as appropriate.

(1.2) The team responds to this TOR by providing some brief background about the project (with more extensive information in annex 1), analyzing the scale of resettlement and rehabilitation, and explaining the R&R policies applicable to Maheshwar (with full text in attachment 1). The report then assesses the adequacy and viability of the resettlement plan. It assesses the adequacy against the general principle enunciated in the GoMP R&R policy that all affected persons must be better off and certainly not worse off after being displaced. It also assesses the adequacy against internationally accepted norms and against broadly-accepted principles of social justice. It assesses the viability of the proposed policy with regard to land availability, the plan's financial underpinning, and the agencies entrusted with executing the plan. Finally, the report examines and evaluates the process by which the stages of R&R have been carried out.

(1.3) The team executed this task during 20May/15June 2000 by examining available and relevant documentation (see annex 2), by holding more than 30 meetings with stakeholders (project developer, project-affected people, government agencies, and other interested parties) (see annexes 3 and 7), and then assessing the facts from an independent perspective. The team submitted an additional list of documents and data to the government and the developer, but they did not arrive in time to be included in this report.

### **(2) Brief Background**

(2.1) The Narmada river is located in central India, principally in the state of Madhya Pradesh. In the river valley, the Maheshwar project is one of about 30 large dams originally planned. This water management program has long been controversial, with international attention heightened as a result of the Sardar Sarovar project (SSP) downstream from Maheshwar. The Maheshwar power project development was initiated in 1975 by the Narmada Valley Development Authority (NVDA), but was handed over to the Madhya Pradesh Electricity Board (MPEB) in 1989, and subsequently conveyed to a private company, S. Kumars, in 1994 as part of a new government initiative to involve the private sector in power generation. The company created to develop the power project, Shree Maheshwar Hydro-Electric Power Corporation, Ltd (SMHPC) was originally owned in part by S. Kumars, with major foreign equity positions intended for foreign investors (initially with two German companies which pulled out, but now tentatively taken by the US-based Ogden Corporation).

(2.2) The dam is designed to provide peaking power to the MPEB, but is not an irrigation water provider. It is not intended to provide significant benefits to the local population, and the benefits of the dam to the regional and national power sector have become increasingly controversial as the cost of construction is now four times the estimate submitted to the government ten years ago.

(2.3) Construction work is limited to date. A causeway for construction vehicles was built across the river ten years ago. More recently, excavation was undertaken for the powerhouse, and some protective walls built to prevent intrusion of monsoon-fed waters into the site. After initiating this work, the developer and the site have been a focus of protests from people in the area who object to the R&R plan or do not want the project at all. As a result, work has failed to meet any of its deadlines, and an attempt to resume the project would require establishing new time lines for R&R and dam construction.

(2.4) In terms of environmental and R&R frameworks, the government of Madhya Pradesh (GoMP) established a comprehensive Resettlement Policy for the Narmada projects in 1989. The NVDA issued its "Rehabilitation Policy for the Oustees of the Narmada Project" in 1992, with additions in 1998 (copy as attachment 2). The project received a conditional environmental clearance from the union Ministry of Environment and Forests (MoEF) in 1994, with significant changes requested in the R&R plan for Maheshwar – including extension of resettlement and rehabilitation benefits to the landless (attachment 2). When the project was taken up by S. Kumars in the 1990s, the R&R work was contracted out to the MPEB. In the ensuing controversy with the local people, construction was suspended and a multi-stakeholder Task Force was created by the Chief Minister of GOMP, which reported to him, inter alia, that the R&R effort had to re-focus on making land available for oustees, in accordance with the MoEF clearance. The project remains suspended until the financial package is re-established as viable. With the passage of time, the governmental approvals for the project is facing review: there is now a petition before the MOEF to rescind the environmental clearance, and the developer has submitted a new estimate of project costs to the Central Electricity Authority (CEA) for approval.

### (3) Scale of Resettlement and Rehabilitation

(3.1) With regard to the land submerged and otherwise affected by the project, there is agreement among both the GoMP and the people that such estimates change in the life of a dam project. This creates significant uncertainty and anxiety among the people now living in the project area. There is disagreement about how large such changes are likely to be, given the lack of clarity about the precision of the land surveys taken to date. One MPEB official claims accuracy down to a centimeter, and the team has asked for reports to confirm that point. The surveyors have placed markers on the ground that the residents claim are not consistent (e.g., land lower than the markers not identified as submerged), and the GoMP claims that residents have been moving the markers. There is also a disagreement over the identification of flood level in the area, given the experience with an "80-year flood" in 1994 that reportedly submerged many areas that are shown by the project authorities as not coming under submergence; normally, standards would require identification of lands up to a 100-year flood level. Also, unlike many other river valley projects, the land in this area is relatively flat and therefore miscalculation of even a fraction of a meter could result in a large discrepancy between the area marked for submersion and actually submerged. The people cite the

experience of the Bargi Project in the same valley where reportedly the number of villages submerged was much greater than the estimates. Also, the MPEB officials concede that geological survey results have not been integrated with the results of the land surveys in order to reach greater certainty about the area likely to be submerged. Finally, much of the confusion over this issue is that there appears to have been no dialogue with the affected residents when the surveys were done.

(3.2) The lands affected will be increased by two other local issues. The principal soil along the river, called “black cotton soil,” is very rich but tends to become waterlogged easily if the water table rises. An analysis has been done for the SMHPC by the Friends of Nature Society-Bhopal that mapped three large areas likely to become waterlogged due to the reservoir raising the water table and subsequent capillary action.<sup>1</sup> There is no mention of the issue in MPEB plans. Lands around the reservoir will also suffer from a backwater buildup when it is filled, causing land at the head of the reservoir and areas adjacent to some tributaries upstream to be inundated. There is no evidence from documents and interviews of the authorities considering this issue.

(3.3) A second key measure of scale is the number of project-affected people (PAP). All parties agree that such numbers will change, but they disagree over the scale. If the area of land affected increases, so will the number of PAP. The MPEB agrees that a new survey is needed, but it has been done in only one village (Jalud) out of 61, where the number of households has risen from 190 to 300 in the new survey, and the MPEB states that it is denied entrance to the other villages by the local people. A definitional issue also exists, i.e., laborers who depend on access to the river resources (e.g., sand, fisheries) but do not live in the submergence area are not included as PAP, even though the policy (section 1.1) describes a displaced person as “any person who has been ordinarily residing *or carrying on any trade or vocation for his livelihood...*” in the project area. There is also no provision for secondary displacement in current plans – e.g., for people who lose their land to be provided to PAP displaced from the submergence area – despite a provision in the GoMP policy (section 1.1[a]) that a displaced person is defined to include anyone living in “an area which is likely to come under submergence whether temporary or permanent because of project *or is otherwise required for the project.*” Thus, for instance, the people displaced in Samraj for the development of land for oustees would need to be considered to be PAP in the policy’s definition.

(3.4) For identification of the scale of the project, a complete socio-economic survey would normally be taken, but does not appear to exist in Maheshwar.<sup>2</sup> Such a survey, covering such parameters as income, assets, consumption, and community needs, is needed to be able to ensure compliance with the GoMP policy and international standards that PAP would improve their standard of living after relocation. Residents raised a host of issues about river-related resources and the community structures in the Narmada valley that would be captured by such a survey. The survey would also lay to rest the argument between various stakeholders about the relative richness of the area.

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<sup>11</sup> Friends of Nature Society, *Survey/Carrying Capacity/Management Plan of Flora and Fauna in the Submergence and Impact Area of Maheshwar Hydroelectric Project over Narmada River*, Map No. 5, Bhopal, n.d.

<sup>2</sup> The April 1993 *Updated Project Report* refers to a “socio-economic survey” having been previously completed by NDVA/MPEB, but the team could not obtain a copy. In any case, it would be outdated by now and would need to be re-completed to capture current social and economic conditions of the PAPs.

To an informed observer, much of the area seems to support a quite generous standard of living through farming or river-related resources.

#### (4) R&R Policy

(4.1) The policy framework is established in the Maheshwar project through two documents included as attachments 1 and 2: the GoMP policy for oustees of the Narmada projects, and the MoEF conditional clearance given to the Maheshwar project in 1994. The team found considerable confusion and disagreements among the stakeholders in its interviews, and has undertaken an analysis (see annex 4) to present the team's understanding of the policy as amended by the clearance. The key issues that the team would identify in the way that the MPEB has applied the policy in carrying out the R&R plans are:

- The policy calls for a norm of exchanging land for land for oustees, yet with 90% of the submergible land obtained or committed by MPEB (figures supplied by MPEB but doubted by other organizations), not a single land owner has taken the land option instead of cash. This clearly violates the standard that "land for land" should be the norm, with cash payment only in exceptional circumstances;
- The policy focuses on improving the sustainable family income after rehabilitation, yet those who accepted cash payment for their land (anywhere from 10-50% as installment payments) have predictably spent their newfound cash on conspicuous consumption, leaving their future income in jeopardy when they have to leave their land;
- The provision in the MoEF clearance requiring extension of R&R provisions to landless laborers (as provided for SSP) has been misinterpreted by the MPEB to exclude allocation of agricultural land;
- The plan has provided no benefits to non-resident laborers, such as sand quarriers, who may lose their livelihoods, despite there being a provision for them in the policy;
- The purpose of the "land for land" policy is to ensure that farmers can improve their standard of living, and thus states that each farmer should be allocated at least two hectares, notwithstanding the loss of a smaller parcel. The MPEB is, instead, assuming that the land for land policy calls for the same amount of land as given up by a farmer. Because there is no surplus high quality land in the area, the MPEB is mistakenly applying the policy by forcing farmers to pay for much more expensive replacement land out of their own pockets. They are also propagating this interpretation of the policy to the other stakeholders, especially the affected villagers. The policy actually calls for a "grant in aid" where the replacement land is more expensive than that taken by the project, but the MPEB says that it is not awarding such assistance;
- Consequently, the validity of sale of agricultural land by villagers to the project authorities can be questioned, since landowners appear to have received misinformation about their options;
- The MPEB is not providing the inflation adjustment provided for in the GOMP policy (section 6.2) in the rehabilitation package (Rs. 11,000), which should have increased the value of the package since the level was set in 1992 to about Rs. 27,000 in the year 2000.

#### (5) Adequacy of the R&R Policy

(5.1) The R&R policy, as laid down by the GoMP (attachment 1) seems adequate for agricultural land owners. However, it is inadequate for the landless, the encroachers, and major sons and daughters as it does not stipulate that they also be given a minimum of 2 ha of land.

(5.2) The MoEF stipulates in its letter of clearance (attachment 2) that the compensation package should be extended to “major sons, landless labor, and encroachers” thereby insisting that they also be given a minimum of 2 ha of land and all else that the land owners are entitled to. However, the MoEF also does not provide for major daughters.

(5.3) The policy, as being implemented for the Maheshwar project by the MPEB, and as described earlier, is neither following the MP policy for the landowners nor the MoEF stipulation for major sons, landless and encroachers.

(5.4) In the opinion of the review team, a policy that can be considered adequate and in consonance with international standards on R&R must, among other things:

- Provide free of cost a minimum of 2 ha of irrigated land (of a quality not less than the land acquired) per family, whether landed (where it would be in lieu of land acquired up to 2 ha), landless (including those whose source of livelihood is affected) or encroachers. This is necessary in order to ensure that they are able to maintain at least the same standard of living that they did prior to being displaced. Also, as this is now being provided for in other projects in India (e.g., Sardar Sarovar and Tehri) which are government projects, there is no reason why Indian citizens being displaced by a private sector project should be discriminated against to the benefit of the private investor.
- Treat all major (married) sons as a separate family. Treat unmarried major sons and daughters as half a family and allocate them each half the land and other compensation. This is also being provided for in other projects. Besides, it is discrimination against women if only major sons are so recognized.
- Provide all land and other assets to the displaced family in the joint names of both husband and wife so that there is no discrimination against women. This is also the practice in some other projects in India.
- Adopt all the other relevant provisions of the GoMP rehabilitation policy and the MoEF letter of clearance.
- Follow a process of rehabilitation that is transparent, participatory and democratic, as spelled out in Section 7 below.

(6) Viability of R&R Plans: Given the R&R requirements described above, there would be significant land, finances and human resources required. The possibility of securing each of these for the Maheshwar Project is discussed below.

(6.1) *Agricultural Land:* According to government estimates based on a survey conducted in 1993, the total of affected land owners, land less losing their homes,

encroachers and major sons is 4000.<sup>3</sup> If we add to these major (unmarried) daughters, the landless not losing their homes but losing their sources of income and employment and those being displaced for reasons other than submergence (e.g., secondary displacement), the number would be much higher even by the 1993 survey. More recent surveys in Jalud (by the MPEB) and in Pathrad (by the NBA) show that numbers will also be much higher.

(6.2) When the survey is redone and the issues raised in section 3 above are taken care of, as they must, the number of eligible families might go up further. Therefore, the requirement of just agricultural land for meeting the obligation under the R&R policy, under the related conditionalities of the MoEF and under the requirement to make the policy adequate (as detailed above) would be many times higher than the currently calculated requirement of 1172 ha, the exact quantum becoming clear only after a fresh survey had been conducted. As of now, only 25 ha of agricultural land has been acquired by the project, at Samraj. This is also not cultivable without treatment and the project authorities have transported black cotton soil from a nearby tank and spread it on this land in an effort to raise its productivity (it is not clear whether environmental clearance for this was granted).

(6.3) According to the Principal Secretary (Energy), GoMP, (meeting on 1 June 2000), there is no agricultural land available in the area for, whatever land there is has been cultivated or encroached upon.

(6.4) The Team is also aware that, if such land is acquired, the encroachers or cultivators will also be entitled, according to the GoMP policy, to rehabilitation, including agricultural land, *ad infinitum*. Also, the fact that S. Kumars is being forced to incur considerable expense involved in transporting and spreading soil on uncultivable land, suggests that agricultural land is not easily available in the area. If agricultural lands were available, there would have been no reason for the S. Kumars to adopt this very much more expensive route.

(6.5) Consequently, it is unlikely or even impossible that agricultural land required to provide land for land would become available, as specified in the GoMP policy and the MoEF clearance letter and considered the minimum acceptable level of rehabilitation by the Team.

(6.6) *Finances:* The R&R Plan provides for a total of Rs. 130.73 crores (29.7 million US \$) for R&R, at 1997 prices.<sup>4</sup> This is about 10% of the overall 1997 budget and, reportedly, 6.5% of the revised budget that is under consideration. This estimate includes a provision of Rs 6.33 crores for the purchase of 1172 ha of agricultural land at Rs 54,000.00 per ha (1993 prices). However, as discussed above, the actual requirement of agricultural land would be many times this figure. Besides, the current cost of land in the area, if it is at all available, is reported to be in excess of Rs. 500,000 per ha. Even the MPEB is paying between Rs. 225,000 and Rs. 325,000 per ha for the

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<sup>3</sup> Madhya Pradesh Electricity Board, *Resettlement and Rehabilitation Plan of Maheshwar Hydro-Electric Project*, Indore. 1998, p. 14.

<sup>4</sup> *Ibid.*, p. 53.

land being purchased from the PAP. Consequently, the requirement of money for just the agricultural land would be many times the current budget for the entire R&R plan. The exact figures can only be worked out once the number of affected families is known.

(6.7) Many of the other components of the R&R costs would also show a corresponding rise as they are linked either to the number of people to be rehabilitated or to the cost of land.

(6.8) We understand that the overall project budget has been revised upwards and the revised budget is awaiting various clearances, including the statutory clearance of the CEA. However, according to the MPEB officials, the R&R component has not been revised. It is, therefore, doubtful if the financial resources required for meeting the R&R obligations would be available.

(6.9) *Human Resources and Institutional Capacity:* the MPEB has been contracted by the S. Kumars to carry out R&R. However, according to their officials, the MPEB has little or no experience in implementing R&R. They were only able to mention one other project where MPEB had many years earlier done R&R. On being asked whether any social scientists were being employed by the MPEB to assist in the R&R work, the team was told that the MPEB staff implementing R&R comprised entirely of engineers (meeting on 31 May 2000).

(6.10) Given their lack of past experience and current capability, it seems unlikely that the MPEB would be able to properly plan and implement a delicate and complex task like R&R.

(6.11) For the reasons given above, the team thinks that the resources and capability to carry out R&R in accordance with the stated policy and conditions of clearance, do not exist. Whereas the financial and human resources can, in theory, be supplemented, the availability of agricultural land of adequate quality remains the most difficult of the constraints.

(7) Resettlement Process: Information and Participation: Perhaps the most important element of the project design is the planning and implementation process. Apart from being scientific and professional, the process must be transparent, participatory and democratic, in the best meaning of good governance.

(7.1) The affected people in the valley expressed their anguish that though they were slated to pay the price for the project by being displaced from their traditional homes, they were never once consulted about the project. They felt that the government had an obligation to take them into confidence right from the start and to discuss with them the rationale of the project. It had a moral duty to explain to them why this project, which was going to submerge their lands and homes, was essential for the region and for the nation and to establish that it was not only the least displacing of all alternatives but also socially and environmentally viable and optimal. However, this was never done.

(7.2) Even when the project was decided upon, the people were never informed about the project and its implications. Some villagers reported to the team that when the initial surveys were done many years back, curious villagers were told that the markers were being put because a train line would pass through their area. Some were also told that an irrigation canal was to be built through their area. The MPEB showed the Team



registers that contained records of village meetings. However, these dated back to only 1997-8, though the project was planned and surveyed since the late 1980s and the surveys were completed in 1993.

(7.3) In village after village people raised various questions about dam design, optimality and viability (see annex 3). They claimed that the electricity to be generated would be too expensive, that it would be generated during the monsoon period when nobody needs it and that in any case there was little or no demand for the electricity to be generated from the project. They claimed that despite raising these questions repeatedly, and despite the fact that they were the affected people and had a right to answers, no one from the government or the S Kumars was ready to give them answers. The MPEB, on the other hand, claimed that because of the Narmada Bachao Andolan, they were not being allowed to enter the villages and, therefore, could not dialogue with the people. The people disputed this and said that they were willing to welcome all representatives of the government and S Kumars, but only if they were willing to answer the real questions. Clearly there is little communication between the villagers and the project authorities, with significant responsibility residing with the authorities to ensure that it occurs.

(7.4) The villagers were also very vocal in their rejection of the surveys conducted by the project authorities (annex 3). They claimed that the land identified for submergence was much less than what would actually be submerged, as discussed in section 3. However, there seems to have been no effort by the authorities to address this issue in a participatory manner. As far as we could tell, no meetings were organised with the villagers where they could, village by village, be informed about what land would be submerged and their questions answered and their doubts cleared.

(7.5) There was also little dissemination of information about various parameters of displacement and resettlement. Village maps, showing details of submergence and listing the names of families whose homes or lands would be submerged, were not available at the villages. Where such lists had been drawn up, the people claimed that there were errors and discrepancies between different versions of the same list. However, no effort seems to have been made to discuss these issues through village meetings. The team discovered that even the MPEB, that was implementing the R&R programme, did not have a family wise list of land holdings nor a list of who had sold their land, who had been paid an advance and who had applied for sale of his or her land. All that was available was a compilation of the total land being submerged and bought or likely to be bought, in each village (attachment 6). Clearly, if such information was not readily available with the MPEB it could not have been made available to each of the villages.

(7.6) There is a provision for monitoring and overview committees at three levels. There are also three committees to monitor the R&R programme at the district level, one in each sub-district. There is also a state level monitoring committee and then there is supposed to be a multi disciplinary committee to monitor the implementation of the MoEF conditions of clearance. The first two types of committees are in existence, though there was some dispute about their membership and their style of functioning. The major issue was that representatives of the PAPs were not a part of these committees. One of the three sub-district committees was also inactive and had only met once. The third committee of experts had reportedly not been set up yet and the MPEB informed us that S. Kumars was setting it up.

(7.7) The villagers, especially the women, reported to the team that most of those who had received a ten or fifty percent advance for their land, in cash, had spent most or all of the money in meeting immediate consumption needs and non-essential purchases. There was the genuine apprehension that, once their land was taken over by the S. Kumars, they would have no source of income. They also complained that the cost of land in the market was too high and that they could not buy equivalent land for the amount being paid to them. However, there appeared to be no system of monitoring what was happening to the families who were selling their land and getting cash advances.

(7.8) The villagers and various other concerned persons who met the Team in Mandleshwar, Indore, Bhopal and Delhi expressed their strong anguish in the way protests in the valley were being handled. Apparently the people of the region had been promised in January 1998 by the government that work on the dam would not commence until the work of the Task Force had been completed. However, when the Task Force completed its work in October 1998, the GoMP responded by lifting the stay of construction, and the people decided to take direct action and occupied the dam site in order to prevent construction activities. Reportedly brutal police force was used to quell this demonstration and road blockages and a large number of villagers were physically assaulted, including many women and children, and jailed. The National Commission for Women, which is a statutory and independent body set up by the Government of India, investigated this incident through a fact finding team and severely indicted the local administration and the project authorities. It accused them not only of oppressive tactics but also of serious violations of human rights and of an attempt to misinform and to conceal evidence.

(7.9) Villagers also complained of being forced to sell their lands. The team was given copies of complaints made to the police regarding stones being thrown on the land of those who refused to sell, and to the bank about money being transferred into their bank accounts without their consent, to attempt to establish that they had actually sold their land.

(7.10) The Team, therefore, cannot but conclude that the project planning process was neither transparent nor participatory. Even now, there is little transparency, participation and democracy in the process of implementation.

## (8) Conclusions

- Significant uncertainty exists about the amount of land to be seriously affected (submerged or waterlogged) by the project, and there are no apparent plans by the authorities to remedy this problem;
- Significant uncertainty exists about the number of people to be seriously affected, and disagreement exists over which categories of affected people are covered by the R&R plan; while the authorities hope to remedy the numbers of people within their definition of the area to be submerged, they will likely fail to identify the thousands living in areas not yet agreed by the authorities to be affected by the project or those whose livelihoods are affected;
- The project does not have adequate data about the income and standard of living of project-affected families, in order to certify their rehabilitation after the conclusion of the project;

- The R&R policy, as currently being implemented, is not adequate and needs to include the landless, major sons and unmarried daughters, encroachers and other affected persons within the category of PAP who would receive agricultural land;
- The project has not implemented the land-for-land policy set by the Government of Madhya Pradesh and by international standards, nor, according to the GoMP, does it have sufficient land available to carry it out if it decided to do so;
- The damages to family income and future prospects arising from cash compensation instead of land for land are already evident in the project area and the validity of cash compensation, given the misinformation about the R&R policy, is questionable;
- The R&R implementing agency has not allocated land to the landless, as called for in the environmental clearance of the Ministry of Environment and Forests and, in any case, required by international and other national standards;
- No benefits have been provided to non-resident laborers and tradesmen, in spite of the provisions of the policy calling for their rehabilitation;
- If the R&R policy were executed as provided, the additional cost to the project would require an entirely new financing package several times larger than currently provided for R&R.
- The agencies currently executing the R&R plan have little experience in this area, and no personnel with the skills required to carry out a successful program for those displaced;
- The approach of the R&R program to date has failed to be transparent, participatory, or democratic, and dissent has been handled with police force rather than communication;
- The provisions for monitoring and evaluation are token efforts rather than serious endeavors to ensure a comprehensive R&R process.

**General Background for the Maheshwar Dam Project**

Madhya Pradesh is the largest state in India, is situated in the heart of India, and constitutes 13.5% of the total area of the country. It is bordered by seven states, Uttar Pradesh, Bihar, Orissa, Andhra Pradesh, Maharashtra, Gujarat, and Rajasthan. The main physical regions of the state are the Northern Region, the Malwa Plateau, the Narmada Valley, the Satpura ranges and the Chhatisgarh plains. The entire area of the state is sub-divided into four river basic zones, i.e., Chambal Betwa Basin, Ganga Basin, Mahanadi-Godawari Basin, and the Narmada Tapti Basin. The project lies in the Narmada Basin on the main river.

The Narmada, the largest westward flowing river in India rises near Amarkantak in the Shahdol District of Madhya Pradesh at an elevation of about 1051 meters in the Mel range. The river traverses 1077 km through Madhya Pradesh. Before leaving Madhya Pradesh, the river forms a common boundary between Madhya Pradesh and Maharashtra for a length of 34 km. Thereafter, for 40 km, it forms a common boundary between Maharashtra and Gujarat. The river then flows through Gujarat state for about 161 km before entering the Gulf of Cambay.

The Maheshwar hydroelectric project is a dam on the Narmada river, drawing on the aggregate catchment area of 69,184 square km. With regulated releases from the Narmada Sagar project and the Bargi project near Jabalpur, the Maheshwar project plans to produce power only during peak-use hours.

As approved by the CWC/CEA, the project envisages construction of: (1) a concrete dam 1075 meters long, with the maximum height of the dam as 36 meters in the river portion (including a non-overflow portion 65 meters long on the left flank, a non-overflow portion 40 meters long on the right flank, a power dam 250 meters long, an overflow dam 670 meters long in the river portion, and another non-overflow portion 50 meters long on the right flank); (2) construction of an earth dam on the left bank 1620 meters long with a maximum height of 19.87 meters; (3) construction of an ear dam on the right bank 725 meters long with a maximum height of 5.11 meters; (4) erection of 27 radial sluice gates each 20 meters wide and 17 meters high on the overflow portion of the dam; and (5) construction of a power house at the foot of the dam on the right flank to house the ten generating units of 40 MW each.

The approved installed capacity of the project is 400 MW. This project envisages utilization of regulated released from the upstream Narmada Sagar reservoir. The work of construction of Narmada-Sagar is underway, but expected to take many years. Pending this, the Maheshwar project expects to utilize the available run-of-the-river inflows. Regulated releases from Bargi

Power House are also expected to be helpful in generation of hydroelectric power.

The project is located 105 km south of the city of Indore, and is connected through the National Highway via Dhamnod. The project is located 4 km east of Mandleshwar town. The dam site can be approached by road either via Dhamnod or from Barwaha. The dam site can also be approached from Khandwa Junction of the Central Railway. In addition, there is a meter gauge line up to Barwaha. Indore is the nearest airport from the dam site, for connections to Mumbai and Delhi.

The Narmada Basin is a narrow strip of plains bounded by the Vindhya on the north and the Satpuras on the south. The climate of the basin is humid and tropical. The average rainfall is about 940 mm. The rainfall occurs mostly during monsoon months of July to October. This is about 85% of the total annual rainfall. Winter rainfall occurs in December and January, but is not appreciable. The months from March to June are practically dry. Extreme heat is experienced during summer (up to 47.5 degrees C), while in the winter the climate is cool (minimum 1 degree C).

The topography of the Maheshwar dam site can accommodate a dam of medium height. A wide river gorge is available with slowly rising abutments and favorable geological conditions. In the river portion of the dam axis, exposed rock consists of dense and hard closely jointed porphyritic basalt is available.

A detailed survey and investigation for selection of the dam site were carried out by the NVDA/MPEB in order to study four alternative sites for the location of the dam. The locations were:

- Option 1: Upstream of the river Nani (2.48 km upstream from option 2)
- Option 2: Just upstream of the river Kundi (Beda) – final site chosen in 1972
- Option 3: Downstream of the river Kundi (Beda) – 1 km downstream of option 2 near Bardhana village
- Option 4: Upstream of river Malan (13.76 km upstream of option 2) near Mardana village

The NVDA/MPEB selected option 2.

The control of the project has changed hands three times since its inception. The implementation of the project was with the Narmada Valley Development Authority (NVDA) until 1988. Due to its status as a power project, it was then handed over to the Madhya Pradesh Electricity Board (MPEB). In 1992, the GoMP decided it should be allocated to the private sector, and the concession was awarded to S. Kumars in 1993. As provided in the agreement, lands required for the project were turned over to S. Kumars in 1996. The company soon thereafter began construction activities.

In 1994, the project received a conditional environmental clearance from the Ministry of Environment and Forests (MoEF). Execution of the R&R portion, however, was contracted out to the MPEB, with a schedule completion date of 1997-1998. Events were to cause the R&R to fall well behind schedule.

Since 1997, a grassroots movement against the Maheshwar dam has emerged in the region, and visible leadership has been provided by the valley-wide NGO called the Narmada Bachao Andolan. In January 1998 more than 15,000 people occupied the dam site which led the GoMP to stop construction work temporarily. When construction resumed in the spring of 1998, local people again attempted to capture the dam site peacefully, but were thwarted by large-scale arrests. Since many of those arrested were women, who complained of mistreatment by the police, this was investigated by the National Commission for Women.

The GoMP responded to the January 1998 unrest by convening a Task Force to look into the alternatives to the Narmada Valley Projects, accompanied by a stop-work order to S. Kumars dated 30 January 1998. The Task Force completed its work in October 1998, reporting to the Chief Minister that work should not be resumed on the Maheshwar project until a new cost-benefit analysis had been completed, a new R&R program had been developed with full participation by PAPs, and that all conditions of the MoEF clearance be adopted. The GoMP did not accept the recommendations of the Task Force, leaving the way clear for resumption of work on the project. Nevertheless, little has been accomplished on project construction, given uncertainty on the financial side of the project.

In the meantime, the financing package of the project went through a number of changes. The project developer, S. Kumars, planned to bring in several foreign partners to co-finance the dam and power works. The original U.S. utility dropped out, and then two German utilities did the same. The financing of key turbines for the power house, imported from the German company, Siemens, remains uncertain. Finally, a new U.S. investor, Ogden Corporation, signed a letter of intent in early 2000 to take a major equity share. As costs have risen substantially with the passage of time, S. Kumars returned to the CEA for a new approval in 2000 for a significantly higher cost estimate. Petitions were also filed with the MoEF by the Narmada Bachao Andolan for repeal of the environmental clearance, arguing that S. Kumars had failed to fulfill the conditions of the original approval.

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Excerpts from Meetings

28 May 2000

Prof. P.V. Indiresan, President Indian National Academy for Engineering, New Delhi

The most critical issue of the Maheshwar project is the R&R component. The Land Acquisition Act is outdated insofar as it provides for compensation only but not for improvement of living conditions of oustees over their situation prior to eviction; a development component is missing. Corruption is a salient side effect of R&R.

India's hydro potential in the south is nearly tapped, however not yet in the north.

With regard to Narmada small hydel projects are not the solution, since by them more land will be submerged than through big schemes; besides that there will be more seepage. High dams are more efficient. Big reservoirs present a beautiful view and offer chances for recreation.

Dr. Syeda Saiyidain Hameed, Member National Commission for Women, New Delhi

Dr. Hameed was member of the inquiry team "In Respect of Violence, Arrest, and Use of Force by Police and others against Women Demonstrators at Maheshwar Hydel Project Site on 22 and 23 April 1998". She has written the report.

The atrocities against women and men committed by police forces were of severe nature. Reference is made to the report.

The land of the Narmada valley is very rich. As also the government of Madhya Pradesh has declared, there is no land for land available as compensation and, therefore, no land for land rehabilitation has been implemented.

Women are in the fore of the mass movement in the Narmada valley.

It is not known to Dr. Hameed what qualifies MPEB, being the power purchaser, for implementation of R&R measures.

29 May 2000

Bhupal Singh, Collector Khargone District

NBA is a respected NGO which works according to the principle "small is beautiful". Maheshwar is not a major project, it is only a barrage, not a dam. 61 villages are likely to be submerged.

In 1997 poor information was rendered to affected people based on poor data. There was fear and, therefore, opposition to the project. Then we began to inform on the size of the project and on R&R. 1998 people occupied the construction site and the work there was stopped. A Task Force was sent and upon its findings and recommendations the Government of M.P. ordered a stop of construction activities which was later on revoked in order not to jeopardize the partly completed protection wall by monsoon floods. Again the construction site was occupied by opposing people. Now the protest has dwindled since people are

gradually understanding the benefits of the project. Only 10-15 villages are still resisting, but there are twists within them.

Madhya Pradesh is short of electrical power.

Let us first construct the project and then talk about the price of electricity. The Government will fix the price then.

The Chief Minister has offered NBA to implement the R&R component but NBA refused. MPEB is short of funds for implementing R&R, therefore the pace is slow. It is an emotional trauma for people to leave their land. People here are not so mobile as those in the north and south of India. About 2,500 families will have to be shifted. Their fields will not always lie adjacent to their villages, but distances of 5-10 km between villages and fields are not a problem. People are gradually accepting this. "The offered land is not as good as the to be submerged land. We improve the land." "The majority of villagers has accepted cash compensation."

"In other implemented projects there was no waterlogging."

"Basically the conflict is between emotions and progress."

"We don't compensate for emotions."

"Farmers need electricity for production and easier work."

"We welcome NGO interventions. They make us better and more people friendly."

#### Sandminers/fishers at Ganghathkhedi (gathering of about 30 persons)

500 persons residing in the village are permanently engaged in sandmining and in addition 1500 as seasonal migrants for about 8 months.

They earn Rs 100-150 per person per day (8 hrs). Work goes on in shifts for 24 hrs. The truckdrivers have to pay Rs 120 to the Janpad checkpoint. 30% of this money goes to the Panchayat.

Many of the sandminers also fish – "we have the best fishing stretch over here" – and make Rs 200-250 a day. They don't like to lose this income. Fishing is free of cost now. Later on they would have to get registered in cooperatives and auction for fishing rights. They feel that they will not be able to compete with rich bidders.

#### Village gathering at Sitoka of about 30 persons

The survey of the maximum water level height of the reservoir is not clear to them. According to the survey higher places will be submerged, lower places not.

The reservoir rim in its upper part consists of loose coarse soil. Recently they had a landslide. The reservoir, which will reach near to their houses, will probably cause more landslides so that their houses will collapse.

They don't get any information from the authorities. They asked time and again the Tehsil administration for information, but did not receive replies. The resettlement committee meets seldom and at distant places. The MPA is supporting their case but to no avail.

On 23/4/98 Tika Ram (age around 90) was so badly chased by police on horses that he died after having reached his home.

They are satisfied with their living as it is now. They have privately financed all their requirements regarding supply of drinking and irrigation water.

### Village gathering at New Pathrad of about 400 persons

Due to monsoon floods in 1965 the major part of the villagers shifted to this place. They own very fertile soils. A middle farmer (10 acres) makes an annual income of Rs 100,000 to 200,000. They have formed a milk cooperative that produces 400 l per day, during monsoon 1,500 l per day. They have a middle school, a health center, and a temple (Krishna and Radha, Narmada resting on a crocodile). The village with many of its large houses will be partly submerged again. So far only 10 families have taken cash compensation which they have received in installments (1.5 years back 10%, recently 40%). Some are regretting their decision, since they are not trained in living on a cash amount. "The District administration does not help us."

"We like to stay in our professions, we don't like money."

30 May 2000

### Meeting with fishermen, boat people and riverbed farmers (8 persons) at Old Pathrad

Fishermen are afraid of losing their income when the user rights for fishing in the reservoir will be leased out to cooperatives which will be dominated by rich people. Now the group has a system of self-control so that overfishing is prevented.

Boat owners leasing out their boats for sand transportation derive an income of Rs 400-500 per day with a medium size boat and Rs 1000 with a large size boat. The purchasing cost for a medium size boat is Rs. 25,000, for a large size boat Rs 50,000. There are more than 20 ferry owners in the reservoir area who make up to Rs 25,000 a day in total. Some people are doing riverbed farming during the dry season when they grow mainly rice and vegetables. The Tehsil in an auction leases the land out annually only to fishermen and boat people.

These three groups of people are very much concerned of losing their sources of income when the reservoir will be filled up. They let artists paint their sails in a protest action.

Dr.N.P. Jain, Director SMHPC, S.P. Singh, Whole Time Director SMHPC, A. Sekhar, Superintending Engineer R&R, MPEB and staff members

"The village program of the independent team has been arranged by NBA in a biased manner. Why has GTZ informed NBA about the arrival of the independent team and not SMHPC? The TATA report is not sanctioned by the TATA Institute (a letter was handed over)."

"More than 50 villages shift every year due to floods. We will shift them above 165.8 m (FRL). Survey for the FRL was carried out by NVDA and marking stones were placed, however removed by villagers and replaced. "Information of villagers is not possible because NBA blocks us." "Any activity, which shall clear the

confusion, they (NBA) don't allow." "The opposition happens because the project was given to a private enterprise."

"The barrage is of 23 m height. It is a run-of-the-river-project."

"The problem of R&R is mainly related to 22 villages (13 will be submerged, 9 partially affected, and 39 will lose agricultural land), i.e. to 2,500 families. The total agricultural land (government and private) which will come under submergence is 16,500 ha. On average only 5% of private land of all villages will come under submergence."

S. Kumars has contracted the NGO BAIF to come up with a special plan for affected fishermen, sand miners, riverbed cultivators etc. A Fishing Training Center will be established and a "new scenic resource development" will happen, also for promoting of tourism. Sand mining will anyhow cease due to an upstream hydel power project to be constructed which will stop sand flows into the Maheshwar reservoir. "We will help them (the sand miners) in entrepreneurship, e.g. train them for agro-industry based jobs. They can become shareholders in small enterprises with S. Kumars at 90% to 10% ratio). There are not thousands of sand miners. According to the census of 1991, only 17 families were engaged in sand mining. This figure has to be extrapolated to the year 2000.

For eligible people there are three alternatives for compensation:

(1) Land prepared by S. Kumars

(2) If that is not liked, then purchase from willing seller

(3) Cash compensation between Rs 90,000 and 130,000 per acre.

*"Plenty of land is available. Patidars have lot of land, they want to sell and do not do agriculture anymore."*

"We give the people better life than they have now, from hut to house, playground, health center, community house, seed storage, water supply to each plot, bath room and toilet. All resettled get it, whether they had it before or not. Rotary money is also contributed for that." "The distance of 1-10 km between resettled villages and fields is not such a big problem. Also now farmers have to shift due to monsoon floods."

We give improved land to the farmers. 80 ha of land have been handed over to S. Kumars by the Government. 50 ha of that land are cultivable. We have treated it with soil from a silted pond, by bunding, and planting crops on the bunds against soil losses. "Top scientists have said that this land is fertile and cultivable."

"Full participation of the PAPs is guaranteed through their Panchayats and the Selection Committees. One Selection Committee meeting had to be convened at a distant place in order to work undisturbed by criminals. Information is rendered to people through three information centers. Those who have questions have to write their question into a book. If the person on duty can answer the question he will do so right away. In case he is unable he will refer it to SMHPC wherefrom the question will be replied."

"On 14 August, 1999 two school buildings were demolished, a roller destroyed, and four security guards beaten at new Behgaon by people under the influence of NBA. Bayernwerk has given money to the NGO Urgewald, Germany."



#### Village gathering at Sulgaon of about 250 people

“The whole project started without any consultation with us. We actually want to receive land for land. Concerning that, S. Kumars gave us false hopes. We fasted and protested. Many were put in jail. Only 6-7 people have given land for cash compensation. One family was never told that the option land for land is available. The family has received 17 Lakhs. 30% of the amount went to S. Kumars broker. The money for the land is used up quickly. Our men are going to drink alcohol, smoke cigarettes and buy motorbikes. How shall we raise our children? We can harvest for up to Rs 100,000 per year per acre and we receive only max. Rs 130,000 per acre as cash compensation. Is that fair?”

#### Meeting with elected District-, Sub-District and Panchayat- representatives (about 25) at Sulgaon

“We want land for land, which is nowhere available and house for house. We don't know the rate of cost per generated power unit we will have to pay later on. We want full information on everything. Nobody knows what the 3,300 hydro power plants as planned in the Narmada basin are good for. There has never been an overall and all-inclusive analysis of the Narmada Valley. These questions were put forward to the Chief Minister of Madhya Pradesh on 10 March 2000 but not answered. Because of our opposition 150 representatives of this area were put in to jail on 8 March 2000. We will continue the movement.

Many people sustain their livelihood by fishing which is free. How shall they be able to pay for bidding to get the official license when the reservoir is there? Big contractors will grab the contract. The fishermen will become sub-contractors and lose a lot of money.”

**Further reference is made to the “Mardana Declaration” which has been signed by all representatives of the affected area.**

“Siemens should not even get a conditional guarantee from the German government. All bad developments inflicted on the people in the Sardar Sarovar project (especially on the Madhya Pradesh side) will be repeated here. Why is it, if S. Kumars is short of money, that they are still investing in ongoing construction?

The destruction of a new school building and a compactor at a resettlement site as shown on photos to visitors of S. Kumars has not been done by people under the influence of the NBA as alleged, but maybe by people on behalf of S. Kumars.”

#### Village gathering at Mardana and people from Behgaon joining in (about 350)

“Brokers have spread rumors that the dam is already starting functioning. So, before it comes to compulsory eviction, people shall opt now for cash compensation. Otherwise they will be receiving a lower price for their land.”

“1. Stop Hermes credit guarantee, 2. Install a proper dialogue with us, 3. Work out a proper Rehabilitation and Resettlement program. They don't know any area suitable for rehabilitation. Rehabilitation has not worked anywhere.”

People asked about the seizure of land which will be waterlogged and are concerned that no compensation measures are planned to be provided.

It is said that there is only one information center at Gogawa (as against three as claimed by S. Kumars), but “the two people there don’t inform, they only smoke cigarettes”.

Mardana is a community of about 4,000 people, partly living in large houses with cattle and other animals within the compounds. There are some small shops, a school, a health center, an old temple and a fortress. The lower part of the village will come under submergence.

“We are satisfied with our living conditions.”

31 May 2000

#### **MPEB Superintending Officers and Staff, at the Dam Site**

The team met with Mr A. Sekhar, Superintending Engineer, MPEB, along with his Executive Engineer. At a later stage, one representative of the SMHPC also joined the meeting.

Some of the important issues that were discussed are summarised below.

1. The MPEB gave the team a list of the total land to be acquired in each village. The list also indicated the amount that had already been purchased from the villagers, the amount for which advances had been paid and the amount for which the owners had approached the MPEB/SMHPC and expressed their willingness to sell. This list (see attachment 6) showed that nearly 90% of the land to be acquired was covered under one of the three above mentioned categories.
2. They also explained the rehabilitation package being offered for the landed, the encroachers, the major sons and the landless (as described in the report).
3. On being asked by the team why so many people were being given cash compensation while the policy and agreements specified that the rule should be land for land, the MPEB officials clarified that people were wanting to take cash in place of land. This, they stated, was because the cash compensation being offered to the people (between 90,000 and 130,000 rupees per acre) was much higher than the market value of their land, which they put at Rs 30,000 to Rs. 35,000 per acre.
4. The MPEB representatives complained that R&R work was being held up partly because the SMHPC did not have the funds to pay the remaining dues of the villagers who had been paid advances or purchase the lands of those other villagers who had also approached them.
5. Another reason for the delay was the movement launched by the NBA that prevented their officers from entering the villages.
6. The team asked the MPEB representatives why the villagers were protesting when, according to the MPEB, they were being paid many times the value of their lands and were themselves coming to offer their lands for sale. The MPEB representatives stated that this was because the NBA was spreading false rumors that every family was entitled to five acres of land, free of cost.

7. The team wanted a break-up of how many of the affected farmers had agreed to or already sold their land and what their land holdings were. The MPEB did not have this information readily available but promised to get it for the team before it left.
8. The team also wanted to know from the MPEB representatives whether the MPEB had past experience in R&R. They were told that in only one earlier project had the MPEB been involved in implementing R&R.
9. The team also wanted to know whether the MPEB staff implementing R&R had any social scientists among them. They were told that there were no social scientists among the MPEB team but that the S Kumar's had employed one woman social scientist.
10. The team then proceeded to New Jalud, which is the rehabilitation site for those being displaced from Jalud village. Representatives of the MPEB and SMHPC accompanied them. Here, the team was shown the school building and the houses that had been constructed, and the homestead sites that had been demarcated and developed. The team enquired about the agricultural land for those to be resettled in New Jalud. They were told that agricultural lands were located about three to five kilometers away but that very few of those being displaced from Jalud (two or three families) were going to lose their agricultural land.
11. The team next visited Samraj, which is another rehabilitation site. Representatives of MPEB and SMHPC accompanied them. In Samraj, the SMHPC has attempted to prepare agricultural land by excavating and bringing black cotton soil from a near by lake and spreading it over what was originally uncultivable land or poor agricultural land. The team also met some villagers who claimed that they were the original cultivators of some of the land that was now being developed by the SMHPC.
12. On being questioned by the team, the villagers stated that they had been brutally and without any notice thrown off their land by the police and the project authorities. That they had earlier been denied any compensation but, after they protested, they had been allotted uncultivable land in the vicinity. The MPEB and SMHPC representatives expressed their helplessness in the matter and said that issues relating to acquisition of land were handled by the State Government, specifically the Collector.
13. The MPEB/SMHPC representatives stated that the treated land was being cultivated on their behalf by BAIF, an NGO. The productivity of the land was high and that there was no significant soil erosion.
14. The team requested them for any scientific reports that might have been carried out regarding the viability of this method of treating land. They did not have these at hand but promised to make them available soon.
15. The team then proceeded to meet with NBA representatives in Mandleshwar. The team invited the MPEB/SMHPC representatives to accompany them but the invitation was declined.

#### Village gathering at Bahtaya of about 400 people

“We have gone to the Bargi hydropower project and have seen the destruction there. What means development? What is the public purpose of the project? Not a single person in the reservoir area has been rehabilitated (land for land). With cash compensation our men are lured to buy motorcycles, alcohol and cigarettes. We are going to face a great waterlogging problem in our area. The entire project

is based on lies. Therefore nobody comes to answer our questions we are putting forward since three years. We are happy in our village. We don't need alms. We just want to get our rights respected."

1 June 2000

Village gathering at Lepa of about 50 persons

"The Chief Minister has promised that 2,000 ha of land for rehabilitation will be made available. Where is the land? What is the economic viability of the 400 MW project when the firm power will be only 49 MW?

We can cultivate our former land sold to S. Kumars until approval of the land transaction by the village panchayat. Nevertheless, the received amount of money for the sold land is used up quickly. There is no extension service available to us on how to survive in a cash-based economy.

S. Kumars says there will be no waterlogging of our fields, but when we watch road construction the fertile soil is removed and replaced by sand which indicates that there is the possibility of waterlogging."

Dr. NP Jain, Director, SMHPC, Indore

1. Dr Jain again expressed his unhappiness that the SMHPC had not been formally informed of the team's visit. He felt that this could be construed as symptomatic of a bias.
2. On being asked by the team why a majority of the displaced farmers were being given cash rather than land, as stipulated by the policy and the agreement, he stated that this was the farmer's own choice. He also stated that no coercion or force was being used.
3. Dr Jain stated that he stands by the experiments being conducted in Samraj and was willing to defend the treatment of land there (the spreading of black cotton soil) in front of any body. He also said that top agricultural scientists had looked at this experiment and were happy with it.
4. When being asked for details about the land available for rehabilitation or about those who had sold or opted to sell their lands, Dr Jain said that such questions should be put to the Government.
5. Dr Jain reiterated the commitment of the S Kumars to implement the Maheshwar Project. He also stated that the trade relations between Germany and India were very strong and that he was confident that the German Government would come forth with the required guarantees.

2 June 2000

Government of Madhya Pradesh, Ministry of Energy and Public Works

The team met with Mr K Shankar Narayanan, Principal Secretary (Energy), at his office in Bhopal. Also present at the meeting were Mr P.C. Mandloi (Member) and Mr A. Sekhar (Superintending Engineer) of the MPEB. Some of the important issues discussed are summarised below.

1. The Team asked the Principal Secretary (PS) about the rehabilitation package being implemented. He was asked why predominantly cash

- compensation was being given rather than land. The PS stated that there was no agricultural land available in the region and therefore giving land was impossible. He went on to say that even if there was some cultivable land that was owned by the government, it would most likely have been encroached upon. Therefore the question of giving land for land did not arise.
2. When asked why people should agree to take cash when they were supposed to get land under the rehabilitation policy, he stated that this was because the villagers would have to pay the difference in the value of land being given to them over the value of the land acquired, out of their own pocket. Though they would be entitled to an interest free loan for the purpose, it would still mean a large investment from their side.
  3. The team sought information from the PS regarding any plans that the government had for compensating those affected people who did not own land but made a reasonable living quarrying sand, fishing or operating boats across the river. The PS pointed out that there was a provision of Rs 12,500.00 per family to help them set up alternate income generating activities. However, as their ability to work was not being compromised, they would find alternate employment on their own.
  4. The team also requested the PS for various documents, including minutes of meetings of the various rehabilitation and other monitoring committees, details of land and population surveys done, proposals sent to the MoEF on the basis of which environmental clearance was accorded, etc. The PS promised that he would have these documents sent in the next few days to Delhi, so that the team could see them before finalizing the report.
  5. The Team was also told that the independent multi-disciplinary monitoring committee that was required to be set up as per the clearance letter of the MoEF was being established by S Kumars.
  6. The PS also reiterated the resolve of the MP Government to have the Maheshwar Project completed and said that he was very hopeful that the German Government would quickly give the required credit guarantees.
  7. As the PS had to leave for another appointment, it was decided that the discussion could continue over lunch with the two representatives of MPEB.

#### Narmada Valley Development Authority

The team then met with Mr Ravindra Sharma, Vice Chairman, NVDA, at his office. Also present was Mr Mazumdar, Advisor to NVDA. The team was accompanied by Mr A. Sekhar of MPEB.

1. The Vice Chairman told the team that though the NVDA had initiated the project and processed the original clearances etc., it had subsequently handed over the project to MPEB and SMHPC. However, the NVDA still kept an overall watch on the progress of the project.
2. The team requested the Vice Chairman for various documents that were prepared by or for the NVDA while they were looking after the project. A list of the documents required was handed over to the Vice Chairman. He promised to get whatever was available and send it to Delhi as soon as possible and in time for the team to see them before finalising the report.

3. The team also asked the Vice Chairman about the progress regarding catchment area treatment for the Maheshwar Project. The Vice Chairman told the team that the SMHPC had not yet started work on catchment area treatment.

### Madhya Pradesh Electricity Board

The team continued discussions with Mr Sekhar of MPEB over lunch. For a while Mr Mandloi of the MPEB also joined in the discussions. Some of the main points discussed are summarised below.

1. The team tried to understand the rehabilitation package as it was being implemented by the MPEB. According to Mr Sekhar, those owning agricultural land that was being acquired would be entitled to alternate land up to a maximum of 5 acres. However, the cost of the land given in compensation would have to be paid for by the affected farmer. Towards this, 50% of the value of the land acquired will be kept by the project as down payment. The balance would have to be paid over twenty years, though the farmer would be entitled to an interest free loan from the government for the purpose.
2. The team pointed out that this package seemed to be in violation of the MP Government Policy that had been announced for the dams on the Narmada and was applicable to the Maheshwar Project. The MPEB representatives were specifically shown clause 5.4 of the policy that specified that a grant-in-aid would be paid to cover the gap between the amount of compensation and the cost of the allotted land. The MPEB representatives seemed surprised at this clause but later admitted that if this clause was to be implemented then it would become disadvantageous for the farmers to accept cash compensation for their land in lieu of the five acres free of cost that they were entitled to.
3. There was also a discussion on whether the conditions stipulated by the MoEF while according environmental clearance implied that a minimum of five acres of land would have to be given to all affected families, whether landless, encroachers, major sons or landed. The MPEB representatives did not agree with this interpretation of the MoEF clearance letter but were not able to produce a copy of the document on the basis of which the MoEF accorded clearance and which was essential to properly interpret the conditions of clearance laid down by the MoEF.

3 June 2000

### **Government of India: Ministry of Power**

The team met with Mr S.S.Sharma, Special Secretary, Ministry of Power, Government of India, in his office. Staff were also present.

1. The officials of the Power Ministry said that the Maheshwar Project was a very important project for the Government of India (GOI) as it was the first of the private sector hydel projects. Therefore, the GOI was committed to the project and to making it a model project.

2. The team shared some of its preliminary observations with the officials and they said that they would certainly take up the issues raised with the State Government and would look forward to the report of the team.
3. They also told the team that the regulatory mechanisms for the rehabilitation and environmental aspects of hydel and other power projects had been strengthened and there was no way a power utility could get a license to operate if it did not meet with all the stipulations.
4. Responding to a query, the Power Ministry officials categorically stated that there was no question of relaxing or amending the conditions of clearance stipulated by the MoEF. These conditions, as they are, have to be complied with.
5. The team was also informed that there were various other investors who had shown interest in the project and that the Ogden Company of USA had already signed an MOU. Also, various Indian financial institutions had decided to put up the money for the project, if required.

### Provisions of the Maheshwar Resettlement and Rehabilitation Policy

Landowners losing more than 2 ha, representing more than 25% of the family's land:

- Price to be paid for the land will be equivalent to similar land in the adjacent command areas; 50% will be withheld as initial installment towards payment for land allotted for new farm, and the balance of the cost of new land will be treated as an interest-free loan from the GoMP. There will be no recovery of the loan for 2 years, and recovered thereafter in 20 equal installments.
- Allotted agricultural land equal in size to land taken, up to a 8 ha ceiling; major sons provided family benefits separately (MoEF, 3.iii); where the cost of allotted land is greater than the amount of compensation for land taken, a grant-in-aid will be paid to cover that gap, the amount being the lesser of (a) Rs. 2000/ha or (b) 50% of the difference of the price of the allotted land and the amount of compensation. If a family chooses to pay the full cost of land, and decline the interest-free loan, it will receive a further grant-in-aid of Rs. 1000/ha per year for 2 years.
- If a family does not wish to receive land in lieu of the submerged land, and to receive full cash instead, it can submit an application to the Land Acquisition Officer and receive 100% of compensation immediately.
- Irrigation to be provided if not already present; if land cannot be irrigated, minimum allotment will be 4 ha instead of 2 ha. Development of dry land to be subsidized by the GoMP to the extent of 75% of the cost involved.
- Rehabilitation grant of Rs. 5,500, adjusted to reflect inflation since 1993
- Allotment of free abadi plot of 502 sq. m.
- Grant-in-aid to displaced family if cost of the house on new abadi plot is greater than compensation paid for previous dwelling; value of previous buildings to be determined on the basis of their replacement value; displaced families allowed to take away building material salvaged.
- Adequate physical and social infrastructure and community services provided at new village sites. Civic amenities will include: drinking water well, link and approach roads and gutters, electricity, dispensary, primary school, panchayat bhawan, playground, cattle shed, religious place of worship, threshing ground, seed store, tree platform, cremation and burial ground, pond wherever feasible, middle school if it existed in the affected village.
- Transportation assistance for families, livestock, personal effects, dismantled building materials, agricultural produce and equipment; or a lump sum grant of Rs. 500 if requested.
- Priority in employment on the project construction.



**Landowners losing less than 2 hectares, representing more than 25% of their land**

- Special care will be taken of the families of marginal farmers and small farmers. (GoMP, A.1.(d))
- Price to be paid for the land will be equivalent to similar land in the adjacent command areas; 50% will be withheld as initial installment towards payment for land allotted for new farm, and the balance of the cost of new land will be treated as an interest-free loan from the GoMP. There will be no recovery of the loan for 2 years, and recovered thereafter in 20 equal installments.
- Allotted agricultural land of 2 ha minimum; major sons provided same family benefits separately (MoEF, 3.iii); where the cost of allotted land is greater than the amount of compensation for land taken, a grant-in-aid will be paid to cover the gap between the price of the allotted land and the amount of compensation. If a family chooses to pay the full cost of land, and decline the interest-free loan, it will receive a further grant-in-aid of Rs. 1000/ha per year for 2 years.
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- Transportation assistance for families, livestock, personal effects, dismantled building materials, agricultural produce and equipment; or a lump sum grant of Rs. 500 if requested.
- Priority in employment on the project construction.

**Landless Displaced Families:**

- Special efforts will be made for effective rehabilitation of landless displaced families (GoMP, 9.1). The rehabilitation and resettlement of the PAPs should be completed by 1997-98 as proposed by extending the compensation package to the landless laborers (MoEF, 3.iii)

- Allotted agricultural land of 2 ha minimum; major sons provided same family benefits separately; the cost of new land will be treated as a grant-in-aid equivalent to the price of the allotted land. If a family chooses to pay the full cost of the land, it will receive a grant-in-aid of Rs. 1000/ha per year for 2 years.
- Irrigation to be provided if not already present; if land cannot be irrigated, minimum allotment will be 4 ha instead of 2 ha. Development of dry land to be subsidized by the GoMP to the extent of 75% of the cost involved.
- Rehabilitation grant of Rs. 11,000, adjusted to reflect inflation since 1993; in addition, landless will receive special financial assistance for 3 years after the first year, amounting to Rs. 8,250, Rs. 5,500, and Rs. 2,750 respectively. In addition, Rs. 12,500 will be kept in reserve for each landless family for executing an independent viable scheme for earning livelihood or for purchase of productive assets (all numbers to be adjusted for increases in the poverty line).
- Amounts to be paid to landless displaced families will be credited to a special fund, and can be made available to oustees for acquisition of a suitable productive asset, including land, in one or more installments as required.
- Allotment of free abadi plot of 502 sq. m.
- Grant-in-aid to displaced family if cost of the house on new abadi plot is greater than compensation paid for previous dwelling; value of previous buildings to be determined on the basis of their replacement value; displaced families allowed to take away building material salvaged.
- Adequate physical and social infrastructure and community services provided at new village sites. Civic amenities will include: drinking water well, link and approach roads and gutters, electricity, dispensary, primary school, panchayat bhawan, playground, cattle shed, religious place of worship, threshing ground, seed store, tree platform, cremation and burial ground, pond wherever feasible, middle school if it existed in the affected village.
- Transportation assistance for families, livestock, personal effects, dismantled building materials, agricultural produce and equipment; or a lump sum grant of Rs. 500 if requested.
- Priority in employment on the project construction.
- Preference will be given to displaced persons and specifically to the agricultural laborers, as defined in the Census of India 1981 in the allotment of shops and commercial plots at the resettlement and project sites.

Encroachers (whether forest or agricultural land):

- Families having legal titles to land and the encroachers would be treated on the same footing for the purpose of entitlement for compensation or for payment of an amount equivalent to compensation as the case may be and for their rehabilitation. (GoMP, A.1.(e) Encroachers will be treated as “Bhoomi Swamis” for the purpose of entitlement to payment of an amount equivalent to compensation, provided the encroachments were made prior to 13.4.1987.

(GoMP, 2.1). The rehabilitation and resettlement of the PAPs should be completed by 1997-98, and extend the compensation package to encroachers (MoEF).

- Price to be paid for the land will be equivalent to similar land in the adjacent command areas; 50% will be withheld as initial installment towards payment for land allotted for new farm, and the balance of the cost of new land will be treated as an interest-free loan from the GoMP. There will be no recovery of the loan for 2 years, and recovered thereafter in 20 equal installments.
- Allotted 1 ha of agricultural land where the area of land acquired is less than 1 ha, and where the area acquired is more than 1 ha, the family will receive 2 ha.; major sons provided same family benefits separately; where the cost of allotted land is greater than the amount of compensation for land taken, a grant-in-aid will be paid to cover the gap between the price of the allotted land and the amount of compensation. If a family chooses to pay the full cost of land, and decline the interest-free loan, it will receive a further grant-in-aid of Rs. 1000/ha per year for 2 years.
- Irrigation to be provided if not already present; if land cannot be irrigated, minimum allotment will be 4 ha instead of 2 ha. Development of dry land to be subsidized by the GoMP to the extent of 75% of the cost involved.
- Rehabilitation grant of Rs. 11,000, adjusted to reflect inflation since 1993
- Allotment of free abadi plot of 502 sq. m.
- Grant-in-aid to displaced family if cost of the house on new abadi plot is greater than compensation paid for previous dwelling; value of previous buildings to be determined on the basis of their replacement value; displaced families allowed to take away building material salvaged.
- Adequate physical and social infrastructure and community services provided at new village sites. Civic amenities will include: drinking water well, link and approach roads and gutters, electricity, dispensary, primary school, panchayat bhawan, playground, cattle shed, religious place of worship, threshing ground, seed store, tree platform, cremation and burial ground, pond wherever feasible, middle school if it existed in the affected village.
- Transportation assistance for families, livestock, personal effects, dismantled building materials, agricultural produce and equipment; or a lump sum grant of Rs. 500 if requested.
- Priority in employment on the project construction.

Scheduled Castes and Scheduled Tribes:

- Special care will be taken of the families of scheduled castes and scheduled tribes. (GoMP, A.1.(d)).
- Price to be paid for the land will be equivalent to similar land in the adjacent command areas; 50% will be withheld as initial installment towards payment for land allotted for new farm, and the balance of the cost of new land will be treated as an interest-free loan from the GoMP. There will be no recovery of the loan for 2 years, and recovered thereafter in 20 equal installments.

- Allotted minimum of 2 ha of agricultural land; major sons provided same family benefits separately; where the cost of allotted land is greater than the amount of compensation for land taken, a grant-in-aid will be paid to cover the gap between the price of the allotted land and the amount of compensation. If a family chooses to pay the full cost of land, and decline the interest-free loan, it will receive a further grant-in-aid of Rs. 1000/ha per year for 2 years.
- Family can opt for 100% cash sale instead of land-for-land, but if such an application is submitted, it will be essential to obtain orders of the Collector who will, after necessary enquiry, certify that this will not adversely affect the interests of the oustee family.
- Irrigation to be provided if not already present; if land cannot be irrigated, minimum allotment will be 4 ha instead of 2 ha. Development of dry land to be subsidized by the GoMP to the extent of 75% of the cost involved.
- Rehabilitation grant of Rs. 11,000, adjusted to reflect inflation since 1993
- Allotment of free abadi plot of 502 sq. m.
- Grant-in-aid to displaced family if cost of the house on new abadi plot is greater than compensation paid for previous dwelling; value of previous buildings to be determined on the basis of their replacement value; displaced families allowed to take away building material salvaged.
- Adequate physical and social infrastructure and community services provided at new village sites. Civic amenities will include: drinking water well, link and approach roads and gutters, electricity, dispensary, primary school, panchayat bhawan, playground, cattle shed, religious place of worship, threshing ground, seed store, tree platform, cremation and burial ground, pond wherever feasible, middle school if it existed in the affected village.
- Transportation assistance for families, livestock, personal effects, dismantled building materials, agricultural produce and equipment; or a lump sum grant of Rs. 500 if requested.
- The facilities extended under various schemes of the Tribal and Harijan Welfare Department to the population of Scheduled Castes and Scheduled Tribes would be continued at the new site of settlement.

#### Other Families Affected by the Project, such as Fishermen and Quarriers:

- A displaced person is any person who has been ordinarily residing or carrying on any trade or vocation for his livelihood for at least one year before the date of publication of notification under section 4 of the Land Acquisition Act or has been cultivating land for at least three years before the date of such notification in an area which is likely to come under submergence whether temporary or permanent because of project or is otherwise required for the project.
- Non-agriculturalist families would be assisted in rehabilitation at the new places by giving grant-in-aid in the initial period and self and wage employment opportunities. (GoMP, A.1.(m))
- Allotted agricultural land of 2 ha minimum; major sons provided same family benefits separately; the cost of new land will be treated as a grant-in-aid

equivalent to the price of the allotted land. If a family chooses to pay the full cost of the land, it will receive a grant-in-aid of Rs. 1000/ha per year for 2 years.

- Irrigation to be provided if not already present; if land cannot be irrigated, minimum allotment will be 4 ha instead of 2 ha. Development of dry land to be subsidized by the GoMP to the extent of 75% of the cost involved.
- Rehabilitation grant of Rs. 11,000, adjusted to reflect inflation since 1993; in addition, landless will receive special financial assistance for 3 years after the first year, amounting to Rs. 8,250, Rs. 5,500, and Rs. 2,750 respectively. In addition, Rs. 12,500 will be kept in reserve for each landless family for executing an independent viable scheme for earning livelihood or for purchase of productive assets (all numbers to be adjusted for increases in the poverty line).
- Amounts to be paid to landless displaced families will be credited to a special fund, and can be made available to oustees for acquisition of a suitable productive asset, including land, in one or more installments as required.
- Allotment of free abadi plot of 502 sq. m.
- Grant-in-aid to displaced family if cost of the house on new abadi plot is greater than compensation paid for previous dwelling; value of previous buildings to be determined on the basis of their replacement value; displaced families allowed to take away building material salvaged.
- Adequate physical and social infrastructure and community services provided at new village sites. Civic amenities will include: drinking water well, link and approach roads and gutters, electricity, dispensary, primary school, panchayat bhawan, playground, cattle shed, religious place of worship, threshing ground, seed store, tree platform, cremation and burial ground, pond wherever feasible, middle school if it existed in the affected village.
- Transportation assistance for families, livestock, personal effects, dismantled building materials, agricultural produce and equipment; or a lump sum grant of Rs. 500 if requested.
- Priority in employment on the project construction.

**PROVISION OF AGRICULTURAL LAND: CATEGORIES OF PAPs WHERE  
DISCREPANCIES EXIST**

<b>Category A</b>	<b>MP Policy B</b>	<b>MoEF Stipulation C</b>	<b>MPEB Implementation D</b>	<b>Policy in some other projects in India E</b>	<b>Team's Recommendation F</b>
1. Owners of less than 2 ha agricultural land	2 ha of irrigated land free of cost; grant In aid to cover difference in cost of replacement land over acquired land, where former is more expensive.	Same as 1B	Recovery of difference of value where replacement land is more expensive than the land acquired. Provision of an interest free loan for the purpose.	Same as 1B (Sardar Sarovar Project – SSP)	Same as 1B
2. Owners of more than 2 ha of agricultural land who are SC/ST	Same as 1B	Same as 1B	Same as above (1D)	Same as 1B (SSP)	Same as 1B
3. Major Sons	Not clear	Same as to landed family (1B)	Not giving any agricultural land	Same as to landed family (SSP & Tehri). Half if unmarried (Tehri)	Same as 3E
4. Encroachers	Up to 1 ha acquisition, to allot 1 ha land. Over 1 ha, to allot 2 ha land.	Same as to landed family (1B)	Same as MP Policy (4B)	Same as to landed family (SSP & Tehri)	Same as to landed family (1B)
5. Landless	No agricultural Land	Same as to landed family (1B)	Same as MP Policy (5B)	Same as to landed family (SSP & Tehri)	Same as to landed family (1B)
6. Those whose source of income is affected	To be given no agricultural land but to be rehabilitated	No specific mention	No provision	Same as to landed family (SSP & Tehri)	Same as to landed families (1B)
7. Major (unmarried) Daughters	No mention	No mention	No mention	Half as much as to landed family (Tehri)	Same as (7E)

## Annex 5

### Main issues raised by stakeholders ( X ) and responses with regard to R&R (based on the findings of the team during its stay in India)

<b>Issues</b>	<b>PAP</b>	<b>Government (District/State/ Central)</b>	<b>MPEB</b>	<b>SMHPC</b>
<b>information</b>	<p style="text-align: center;">X</p> <p>PAP are excluded from appropriate access to information; many petitions with relevant questions were forwarded to the authorities but never answered; Originally people were told that an irrigation canal and a railway track was to be built</p> <p>we welcome all representatives from the govt. and S. Kumars, but only if they are willing to answer the real questions</p>	<p>poor information of people in 1997 due to poor data base; later on, information has been improved</p>	<p>X</p> <p>in the beginning of 1997 regular visits of villages were conducted</p> <p>due to agitation of NBA information gathering is not possible anymore</p>	<p>there are 2 information centers in the reservoir area staffed with 2 persons each; a 3rd center will be established</p>
<b>communication</b>	<p>X</p> <p>except for NBA nobody enters into an unbiased dialogue with PAP</p>	<p>X</p> <p>There is an information gap between villagers and the project authorities (MOEF)</p>	<p>X</p> <p>NBA is preventing us from rendering proper communication services in the villages</p>	<p>X</p> <p>1 social scientist is on payroll of S.Kumars</p>
<b>clarity on: technical design</b>	<p>X</p> <p>it is a dam with a reservoir</p>	<p>it is a barrage (district govt.)</p>		<p>it is a barrage and a run-of-the-river-project</p>
<b>submergence</b>	<p>higher places are</p>	<p>FRL was clear;</p>	<p>FRL was clear;</p>	<p>FRL was clear;</p>

<b>area (FRL, MWL, BWL)</b>	shown as submergence places, lower places not; flood level is identified on 80, not 100- years experience; consequences of backwater build-up (BWL) are not known; there was no dialogue with affected residents when surveys were done	people have removed/replaced markers; re-surveying is not possible due to people's resistance; survey could be done at 1 cm exactness with new instruments	people have removed/replaced markers; resur-veying is not possible due to people's resistance  MPEB unaware of BWL	people have removed/replaced markers; resur-veying is not possible due to people's resistance
<b>number of impacted villages</b>	when FRL, MWL, BWL are not clear, how many villages will be impacted?			61, out of them 13 will submerge completely, 9 partially, 39 will lose agricultural land
<b>rim stability</b>	houses will collapse if FRL reaches the upper 3 m of the rim, which consist of loose soil			only the upper 3 m are of loose soil; below is solid rock; no danger for houses
<b>size of water-logging area</b>	people of Mardana, Bhattyan, Bhatyapur, Pipalgaon are concerned	there will be no waterlogging as can be ascertained by scientific research of other completed projects (district govt.)	there will be no land affected by waterlogging	SMHPC has sponsored a study which shows 3 large areas likely to become water-logged; no follow-up measures have been undertaken
<b>number of PAP</b>	a complete actual survey of all PAP does not exist; people want to know number of affected sand-miners, fishermen,		an actual survey of all 61 villages incl. cultural sites docu-mentation has to be done but MPEB is	numbers for all categories not known, but census 1991 showed 17 sandmining families; this figure must be extrapo-



	<p>ferryman, riverbed cultivators etc. (there are thousands)</p> <p>in total at least 15,000 families are affected</p>		denied entrance	<p>lated to the year 2000</p> <p>max. 4,000 families (incl. 1,700 adult sons) are affected</p>
<b>land availability</b>	<p>the option land for land is not existing; cash compensation should be the exception, not the norm according to the law</p> <p>PAP cannot buy equivalent land for the cash amount received for lost land</p> <p>also landless laborers are eligible for land allocation</p> <p>at least 8,000 ha would be required</p> <p>what is the compensation package for day laborers and traders?</p> <p>what is the compensation for secondary displacements to uncultivable land? (Samraj)</p>	<p>there is no equivalent land available in the region (M.P. govt., district govt.)</p> <p>The [MOEF] team visited 'Samraj Ki Bedi' which is a stony and barren hillock on which agriculture is quite impossible (MOEF)</p>	<p>nobody wants land for land; treated land is available at Samraj, the productivity is high, there is no significant soil erosion</p> <p>MPEB compensates by cash payments</p> <p>only 25 ha have been acquired so far (at Samraj)</p> <p>MPEB has no provisions</p> <p>Issues relating to acquisition of land as resettlement areas are handled by the state government.,</p>	<p>Patidars have lots of land for sale and are willing to sell; besides that, land treated by S. Kumars is available at Samraj which is of equivalent quality as approved by soil scientists</p> <p>Issues relating to acquisition of land are handled by the state government, specifically by the collector</p>

			specifically by the collector	
<b>economic viability of the project</b>	<p>construction cost is now four times the estimate submitted to the govt. 10 years ago, effects:</p> <ul style="list-style-type: none"> <li>- people will be unable to pay for the higher cost per kWh</li> <li>- there will be no subsidized electricity to farmers anymore and</li> <li>- no free single-light connections to the poor</li> </ul> <p>the real value of all property, resources and infrastructure at market costs has never been properly assessed, were it, the price per kWh would be even higher</p>	<p>after construction the govt. will fix the price; electricity will benefit farmers for production and easier work (district govt.)</p>	<p>we want to explain what is beneficial to them but are not allowed to enter the villages</p>	<p>people will have better life than before: from hut to house, playground, health center, community house, seed storage, water supply to each plot, bath room and toilet; the distance of up to 10 km between resettled villages and fields is no big problem, also now farmers have to shift due to monsoon floods</p>
<b>catchment area treatment</b>	when will the activities start?	<p>nothing has been done so far (NVDA); the clearance conditions stipulated by MOEF have to be complied with (central</p>		<p>several departments have been asked, but in vain</p>

		govt.)		
<b>alternatives</b>	PAP are unable to understand why there are no alternatives to this project and why this project is found optimal; farmers are ready to go for biogas and solar energy	no project is made without pain, there has to be pain; fortunately the number of PAP is small (M.P. govt.); basically the conflict is between emotions and progress (district govt.); top priority for us is Maheshwar; when we don't move forward it will have negative impact on other projects; for us it is a show case; the critical points will be checked (central govt.)		there is no technical and economic alternative to the project
<b>documentation</b>	X  no maps showing FRL, MWL, BWL, details of submergence and no list of affected houses and fields available to PAP; no family wise list of affected landholdings and list of those who have sold/will sell is available			
<b>participation</b>	X representatives of PAP want to be included in the R&R planning and		district-level selection committees are very	full participation of people is guaranteed through Panchayats and selection committees;

	monitoring committees		effective, but mee-tings are convened according to avai-lability of MNA	distant places are chosen because of disturbance by criminals
<b>implementation capacity of MPEB/SMHPC</b>	<p>X</p> <p>NBA did not accept the offer to implement R&amp;R since the legal stipulation “land for land” cannot be met as there is no land available</p>	<p>X</p> <p>NBA was offered implementation of R&amp;R but refused</p>	<p>X</p> <p>there are no social scientists with MPEB, but only engineers</p> <p>NBA was offered implementation of R&amp;R but refused</p> <p>MPEB is short of funds, therefore pace of R&amp;R is slow</p>	<p>X</p> <p>it is the task of MPEB</p> <p>NBA was offered implementation of R&amp;R but refused</p>
<b>respect of human rights</b>	<p>X</p> <p>majority of people wants to stay in their villages and keep on farming, fishing, sand mining etc. and fights for that by non-violent protest</p> <p>people having opted for cash compensation receive no market related skills development training</p> <p>Dump truck loads of stones on farmer's fields,</p>	<p>government resorts time and again to force (beating, imprisonment)(National Commission for Women); forceful eviction from land (second displace-ment: Samraj);</p> <p>displaced people have to be better off; that will be checked (central govt.) people's ability</p>		<p>fishermen will be trained by a fishery training center; sandminers will lose jobs because of the construction of an up-river dam, but will – like river-bed cultivators - be rehabilitated under a special plan under elaboration</p>

	destruction of farmers' irrigation pumps, spreading of misleading information	to work is not com-promised, they will find alternate employment on their own (M.P. govt.)		by BAIF (NGO): -small enterprises, - agribusiness, - tourism these people can become shareholders with S.Kumars at 90%:10% ratio
<b>respect of laws and rules</b>	<b>X</b> - land for land - compensation of day laborers - land acquisition without notice and legal justification (Samraj) - adequate compensation for secondary displacement - non-violent gathering on private ground – etc.	the clearance conditions stipulated by MOEF have to be complied with; all critical points will be checked by the govt. (central govt.)		
violence in Behgaon	perhaps the criminal actions were conducted by persons on behalf of SMHPC			<b>X</b> people under the influence of NBA have destroyed 2 school buildings, 1 roller and beaten 4 watchmen in the resettlement area of Behgaon

**Miscellaneous Issues**

Listed below are some of the other issues that impact on the people in the project area.

**1. Catchment Area Treatment**

The total catchment of the Maheshwar Project is 268,000 ha. The area to be treated (very high and high erodibility classification) was estimated in the early 1990s to be 83,547 ha (MPEB 1992, Appendix II, p 3)<sup>5</sup>, comprising both forest and non-forest land. The area with very high and high erodibility might have significantly increased since then.

The NVDA Vice Chairman informed us (meeting with Team on 1.6.2000) that the treatment of the catchment of Maheshwar Project had not yet started. The MoEF has stipulated as a condition of clearance that CAT must be completed at least one year prior to submergence (attachment 2).

According to the plans drawn up in the early 1990s, CAT would take seven years to complete. Even if we assume that the increased area that might require treatment can also be completed in the same time and that the treatment work is commenced at the earliest, ie. 2001, impoundment cannot begin before 2009.

The treatment of the catchment is not only essential to prevent the siltation of the dam and to ensure regulated water flows, it is also essential for providing the biomass that the people displaced by the project would require from the remaining forests and land in the region.

**2. Adverse Health Impacts**

It is an established fact that reservoirs in India that are below 3000 ft above sea level facilitate the breeding of disease carrying vectors. Further, if land gets water logged and stagnant pools of water are created, they also serve as breeding habitat for vectors.

Despite this, no study on the adverse health impacts of Maheshwar Project seems to have been carried out.

**3. Water Quality**

The quality of water in a reservoir changes drastically and consequently affects the availability of fish and also the health and well being of the people drawing water from the reservoir. However, despite this, no studies of the impact on water quality of the Maheshwar Dam seem to have been conducted.

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<sup>5</sup> Dasputre et al.: *Some Environmental Aspects of Maheshwar Hydroelectric Project*. Madhya Pradesh Electricity Board, January 1992.

4. Downstream Impacts

The disruption in the flow of water downstream of the dam would have impacts on the downstream ecology, fisheries and water availability. The trapping of sediment in the dam would also have an impact downstream, especially on the fisheries. These do not seem to have been studied.

5. Dust Pollution

During construction of the project is likely to cause dust pollution. Given the proximity of villages to the construction site, this could have a significant impact on the health of the local villagers and on their crops. However, there appears to be no effort made at studying or minimizing this impact.

6. Backwater Build Up

There is a likelihood of backwater build up on the river and in the tributaries flowing into the river upstream of the dam. Such a build up would not only submerge agricultural land and villages but also impact on the vegetation. However, this has neither been studied nor provided for.

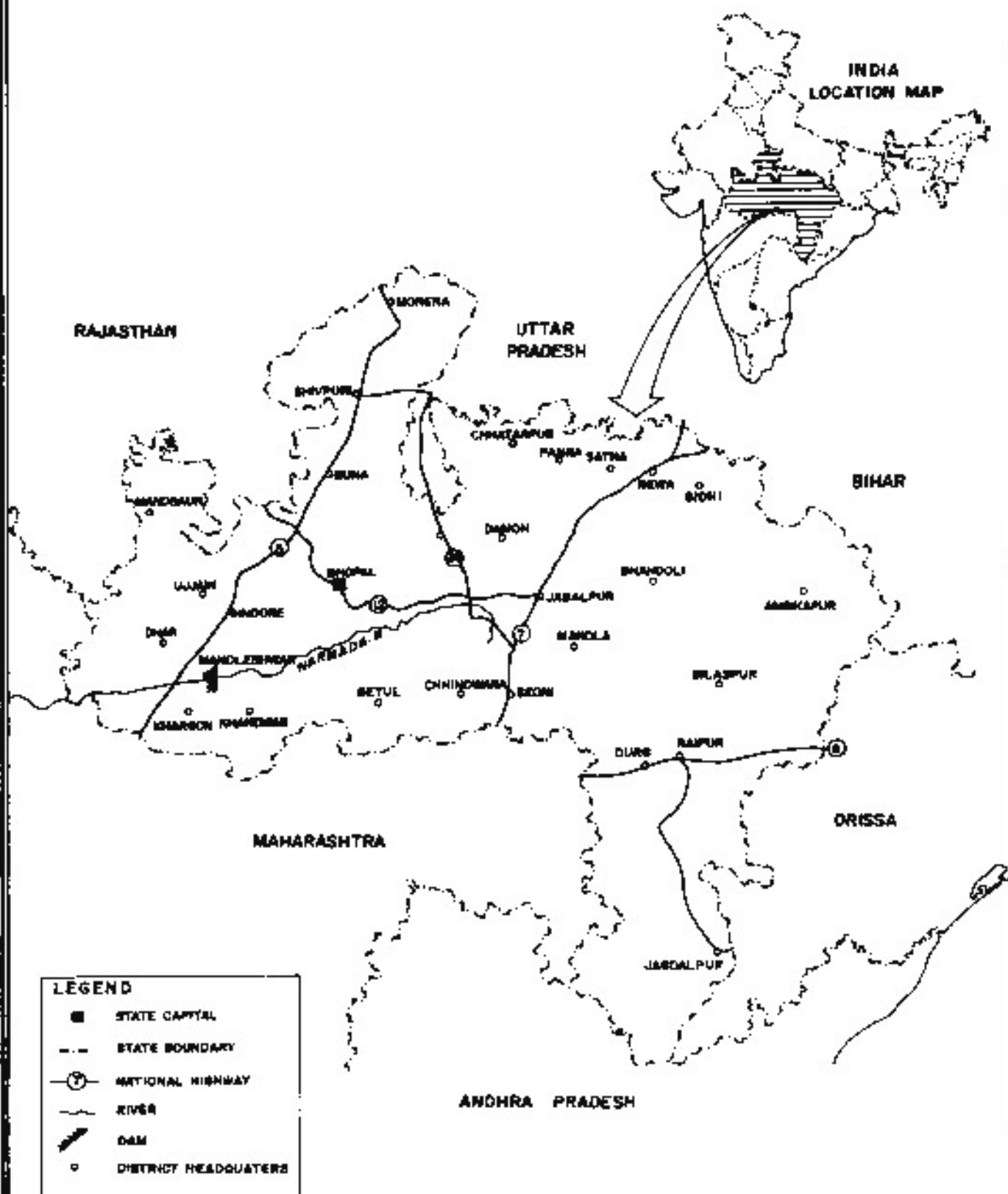
**ANNEX 7****Itinerary/Contacted persons**

<b>Date</b>	<b>Meeting</b>	<b>Duration</b>
28.05.00 Delhi	Prof. P.V.Indiresan, President Indian Academy of Engineering Dr. Syeda Saiyidian Hameed, Member National Commission for Women	1 hr 1.5 hrs
29.05.00	Ms. Chittaroopa Palit, Mr. Alok Agarwal and staff of NBA (Mandleshwar) Mr. Bhupal Singh, Collector, Khargone District (Jalud) Sand miners in Ganghatkhedi (about 30) Villagers in Sitoka (about 30) Villagers in Pathrad (new) (about 400)	2 hrs 2 hrs 1 hr 1.5 hrs 1.5 hrs
30.05.00	Fishermen and riverbed farmers at Pathrad (old) (8 persons) Dr. N.P. Jain, Director SMHPC, Mr. S.P. Singh, Whole Time Director SMHPC, Mr. A. Sekhar, Superintending Engineer R.&R. MPEB, & staff Villagers in Sulgaon (about 250) Elected representatives at Sulgaon (about 25) Villagers of Mardana and Behgaon (about 350)	1 hr 3 hrs 2 hrs 3 hrs 2 hrs
31.05.00	Mr. A. Sekhar, Superintending Engineer R&R MPEB New Jalud (resettlement site) and Samraj (rehabilitation site) together with Mr. A. Sekhar, Superintending Engineer R.&R. MPEB, and NBA Ms. Chittaroopa Palit, Mr. Alok Agarwal and staff of NBA Villagers of Bhattyan (about 400)	2 hrs 2 hrs 4 hrs 2 hrs
01.06.00	Villagers of Lepa (about 50) Villagers (10) at Samraj (rehabilitation site) together with NBA Dr. N.P.Jain, Director SMHPC (Indore) Group of journalists and NGO representatives (Indore)	2 hrs 2 hrs 1 hr 1.5 hr
02.06.00	Staff of Bhopal Gas Peedit Mahila Udyog Sangathan Mr. K.Shankar Narayanan, Principal Secretary Energy &	1 hr



Bhopal	Public Works Department, Mr. Prakash Chandra Mandloi, Member (Civil Engineering), MPEB, Mr. A. Sekhar, Superintending Engineer R.&R. MPEB Mr. Ravindra Sharma, Vice Chairman NVDA Mr. A. Sekhar, Superintending Engineer R&R MPEB and Mr. PC Mandoli, Member MPEB	1 hr 0.5 hrs 1.5 hr
03.06.00 Delhi	Mr. Harminder Singh, Director Board Member, Mr. Vinod Jain, Chief Manager Power Generation, Mr. R.Vasudevan, Chief Manager Marketing, all Siemens German Ambassador Dr. H. Dieckmann-Adenauer and Dr. Elfi Bierbrauer, Counsellor Economic & Commercial Various Concerned Individuals of Delhi at the Gandhi Peace Foundation	0.5 hrs 2 hrs 1 hr
04.06.00 Delhi	Ms. Chittaroopa Palit, Mr. Alok Agarwal, NBA Mr. R. Ramaswami Iyer, former Secretary of Water Resources Ministry	1 hr 1.5 hrs

### LOCATION OF MAHESHWAR DAM



## **Provisions of the Maheshwar Resettlement and Rehabilitation Policy**

### **Landowners losing more than 2 ha, representing more than 25% of the family's land:**

- Price to be paid for the land will be equivalent to similar land in the adjacent command areas; 50% will be withheld as initial installment towards payment for land allotted for new farm, and the balance of the cost of new land will be treated as an interest-free loan from the GoMP. There will be no recovery of the loan for 2 years, and recovered thereafter in 20 equal installments.
- Allotted agricultural land equal in size to land taken, up to a 8 ha ceiling; major sons provided family benefits separately (MoEF, 3.iii); where the cost of allotted land is greater than the amount of compensation for land taken, a grant-in-aid will be paid to cover that gap, the amount being the lesser of (a) Rs. 2000/ha or (b) 50% of the difference of the price of the allotted land and the amount of compensation. If a family chooses to pay the full cost of land, and decline the interest-free loan, it will receive a further grant-in-aid of Rs. 1000/ha per year for 2 years.
- If a family does not wish to receive land in lieu of the submerged land, and to receive full cash instead, it can submit an application to the Land Acquisition Officer and receive 100% of compensation immediately.
- Irrigation to be provided if not already present; if land cannot be irrigated, minimum allotment will be 4 ha instead of 2 ha. Development of dry land to be subsidized by the GoMP to the extent of 75% of the cost involved.
- Rehabilitation grant of Rs. 5,500, adjusted to reflect inflation since 1993
- Allotment of free abadi plot of 502 sq. m.
- Grant-in-aid to displaced family if cost of the house on new abadi plot if greater than compensation paid for previous dwelling; value of previous buildings to be determined on the basis of their replacement value; displaced families allowed to take away building material salvaged.
- Adequate physical and social infrastructure and community services provided at new village sites. Civic amenities will include: drinking water well, link and approach roads and gutters, electricity, dispensary, primary school, panchayat bhawan, playground, cattle shed, religious place of worship, threshing ground, seed store, tree platform, cremation and burial ground, pond wherever feasible, middle school if it existed in the affected village.
- Transportation assistance for families, livestock, personal effects, dismantled building materials, agricultural produce and equipment; or a lump sum grant of Rs. 500 if requested.
- Priority in employment on the project construction.

### **Landowners losing less than 2 hectares, representing more than 25% of their land**

- Special care will be taken of the families of marginal farmers and small farmers. (GoMP, A.1.(d))
- Price to be paid for the land will be equivalent to similar land in the adjacent command areas; 50% will be withheld as initial installment towards payment for land allotted for new farm, and the balance of the cost of new land will be treated as an interest-free loan from the GoMP. There will be no recovery of the loan for 2 years, and recovered thereafter in 20 equal installments.
- Allotted agricultural land of 2 ha minimum; major sons provided same family benefits separately (MoEF, 3.iii); where the cost of allotted land is greater than the amount of

compensation for land taken, a grant-in-aid will be paid to cover the gap between the price of the allotted land and the amount of compensation. If a family chooses to pay the full cost of land, and decline the interest-free loan, it will receive a further grant-in-aid of Rs. 1000/ha per year for 2 years.

- If a family does not wish to receive land in lieu of the submerged land, and to receive full cash instead, it can submit an application to the Land Acquisition Officer and receive 100% of compensation immediately.
- Irrigation to be provided if not already present; if land cannot be irrigated, minimum allotment will be 4 ha instead of 2 ha. Development of dry land to be subsidized by the GoMP to the extent of 75% of the cost involved.
- Rehabilitation grant of Rs. 11,000, adjusted to reflect inflation since 1993
- Allotment of free abadi plot of 502 sq. m.
- Grant-in-aid to displaced family if cost of the house on new abadi plot is greater than compensation paid for previous dwelling; value of previous buildings to be determined on the basis of their replacement value; displaced families allowed to take away building material salvaged.
- Adequate physical and social infrastructure and community services provided at new village sites. Civic amenities will include: drinking water well, link and approach roads and gutters, electricity, dispensary, primary school, panchayat bhawan, playground, cattle shed, religious place of worship, threshing ground, seed store, tree platform, cremation and burial ground, pond wherever feasible, middle school if it existed in the affected village.
- Transportation assistance for families, livestock, personal effects, dismantled building materials, agricultural produce and equipment; or a lump sum grant of Rs. 500 if requested.
- Priority in employment on the project construction.

#### Landless Displaced Families:

- Special efforts will be made for effective rehabilitation of landless displaced families (GoMP, 9.1). The rehabilitation and resettlement of the PAPs should be completed by 1997-98 as proposed by extending the compensation package to the landless laborers (MoEF, 3.iii)
- Allotted agricultural land of 2 ha minimum; major sons provided same family benefits separately; the cost of new land will be treated as a grant-in-aid equivalent to the price of the allotted land. If a family chooses to pay the full cost of the land, it will receive a grant-in-aid of Rs. 1000/ha per year for 2 years.
- Irrigation to be provided if not already present; if land cannot be irrigated, minimum allotment will be 4 ha instead of 2 ha. Development of dry land to be subsidized by the GoMP to the extent of 75% of the cost involved.
- Rehabilitation grant of Rs. 11,000, adjusted to reflect inflation since 1993; in addition, landless will receive special financial assistance for 3 years after the first year, amounting to Rs. 8,250, Rs. 5,500, and Rs. 2,750 respectively. In addition, Rs. 12,500 will be kept in reserve for each landless family for executing an independent viable scheme for earning livelihood or for purchase of productive assets (all numbers to be adjusted for increases in the poverty line).
- Amounts to be paid to landless displaced families will be credited to a special fund, and can be made available to oustees for acquisition of a suitable productive asset, including land, in one or more installments as required.
- Allotment of free abadi plot of 502 sq. m.

- Grant-in-aid to displaced family if cost of the house on new abadi plot if greater than compensation paid for previous dwelling; value of previous buildings to be determined on the basis of their replacement value; displaced families allowed to take away building material salvaged.
- Adequate physical and social infrastructure and community services provided at new village sites. Civic amenities will include: drinking water well, link and approach roads and gutters, electricity, dispensary, primary school, panchayat bhawan, playground, cattle shed, religious place of worship, threshing ground, seed store, tree platform, cremation and burial ground, pond wherever feasible, middle school if it existed in the affected village.
- Transportation assistance for families, livestock, personal effects, dismantled building materials, agricultural produce and equipment; or a lump sum grant of Rs. 500 if requested.
- Priority in employment on the project construction.
- Preference will be given to displaced persons and specifically to the agricultural laborers, as defined in the Census of India 1981 in the allotment of shops and commercial plots at the resettlement and project sites.

Encroachers (whether forest or agricultural land):

- Families having legal titles to land and the encroachers would be treated on the same footing for the purpose of entitlement for compensation or for payment of an amount equivalent to compensation as the case may be and for their rehabilitation. (GoMP, A.1.(e) Encroachers will be treated as "Bhoomi Swamis" for the purpose of entitlement to payment of an amount equivalent to compensation, provided the encroachments were made prior to 13.4.1987. (GoMP, 2.1). The rehabilitation and resettlement of the PAPs should be completed by 1997-98, and extend the compensation package to encroachers (MoEF).
- Price to be paid for the land will be equivalent to similar land in the adjacent command areas; 50% will be withheld as initial installment towards payment for land allotted for new farm, and the balance of the cost of new land will be treated as an interest-free loan from the GoMP. There will be no recovery of the loan for 2 years, and recovered thereafter in 20 equal installments.
- Allotted 1 ha of agricultural land where the area of land acquired is less than 1 ha, and where the area acquired is more than 1 ha, the family will receive 2 ha.; major sons provided same family benefits separately; where the cost of allotted land is greater than the amount of compensation for land taken, a grant-in-aid will be paid to cover the gap between the price of the allotted land and the amount of compensation. If a family chooses to pay the full cost of land, and decline the interest-free loan, it will receive a further grant-in-aid of Rs. 1000/ha per year for 2 years.
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- Adequate physical and social infrastructure and community services provided at new village sites. Civic amenities will include: drinking water well, link and approach roads and gutters, electricity, dispensary, primary school, panchayat bhawan, playground, cattle shed, religious place of worship, threshing ground, seed store, tree platform, cremation and burial ground, pond wherever feasible, middle school if it existed in the affected village.
- Transportation assistance for families, livestock, personal effects, dismantled building materials, agricultural produce and equipment; or a lump sum grant of Rs. 500 if requested.
- Priority in employment on the project construction.

#### Scheduled Castes and Scheduled Tribes:

- Special care will be taken of the families of scheduled castes and scheduled tribes. (GoMP, A.1.(d)).
- Price to be paid for the land will be equivalent to similar land in the adjacent command areas; 50% will be withheld as initial installment towards payment for land allotted for new farm, and the balance of the cost of new land will be treated as an interest-free loan from the GoMP. There will be no recovery of the loan for 2 years, and recovered thereafter in 20 equal installments.
- Allotted minimum of 2 ha of agricultural land; major sons provided same family benefits separately; where the cost of allotted land is greater than the amount of compensation for land taken, a grant-in-aid will be paid to cover the gap between the price of the allotted land and the amount of compensation. If a family chooses to pay the full cost of land, and decline the interest-free loan, it will receive a further grant-in-aid of Rs. 1000/ha per year for 2 years.
- Family can opt for 100% cash sale instead of land-for-land, but if such an application is submitted, it will be essential to obtain orders of the Collector who will, after necessary enquiry, certify that this will not adversely affect the interests of the oustee family.
- Irrigation to be provided if not already present; if land cannot be irrigated, minimum allotment will be 4 ha instead of 2 ha. Development of dry land to be subsidized by the GoMP to the extent of 75% of the cost involved.
- Rehabilitation grant of Rs. 11,000, adjusted to reflect inflation since 1993
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- Transportation assistance for families, livestock, personal effects, dismantled building materials, agricultural produce and equipment; or a lump sum grant of Rs. 500 if requested.

- The facilities extended under various schemes of the Tribal and Harijan Welfare Department to the population of Scheduled Castes and Scheduled Tribes would be continued at the new site of settlement.

Other Families Affected by the Project, such as Fishermen and Quarriers:

- A displaced person is any person who has been ordinarily residing or carrying on any trade or vocation for his livelihood for at least one year before the date of publication of notification under section 4 of the Land Acquisition Act or has been cultivating land for at least three years before the date of such notification in an area which is likely to come under submergence whether temporary or permanent because of project or is otherwise required for the project.
- Non-agriculturalist families would be assisted in rehabilitation at the new places by giving grant-in-aid in the initial period and self and wage employment opportunities. (GoMP, A.1.(m))
- Allotted agricultural land of 2 ha minimum; major sons provided same family benefits separately; the cost of new land will be treated as a grant-in-aid equivalent to the price of the allotted land. If a family chooses to pay the full cost of the land, it will receive a grant-in-aid of Rs. 1000/ha per year for 2 years.
- Irrigation to be provided if not already present; if land cannot be irrigated, minimum allotment will be 4 ha instead of 2 ha. Development of dry land to be subsidized by the GoMP to the extent of 75% of the cost involved.
- Rehabilitation grant of Rs. 11,000, adjusted to reflect inflation since 1993; in addition, landless will receive special financial assistance for 3 years after the first year, amounting to Rs. 8,250, Rs. 5,500, and Rs. 2,750 respectively. In addition, Rs. 12,500 will be kept in reserve for each landless family for executing an independent viable scheme for earning livelihood or for purchase of productive assets (all numbers to be adjusted for increases in the poverty line).
- Amounts to be paid to landless displaced families will be credited to a special fund, and can be made available to oustees for acquisition of a suitable productive asset, including land, in one or more installments as required.
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- Transportation assistance for families, livestock, personal effects, dismantled building materials, agricultural produce and equipment; or a lump sum grant of Rs. 500 if requested.
- Priority in employment on the project construction.

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To,  
Shri Prodipto Ghosh  
Secretary,  
Ministry of Environment and Forests,  
Paryavaran Bhavan, CGO Complex,  
Lodhi Road,  
New Delhi

**Sub : Objections to the fraudulent land availability plan and exclusion of landless families in environmental clearance to Maheshwar Project**

8th May 2006

Dear Sir,

I am writing to you today on behalf of my client, the Narmada Bachao Andolan – the organization of the people of the Narmada valley displaced by large dams that has been struggling for their rights for the last 20 years.

2. We are writing to you in the context of the Environmental clearances given to the State Government and the Project authorities of the Maheshwar Hydro-Electric Project on the 7<sup>th</sup> of January 1994 and the 1<sup>st</sup> of May 2001, to state our objections to the deliberate and willful exclusion of safeguards for several thousand landless oustee families by the MOEF and to the fraudulent and non-existent details of land availability that the MOEF clearances are based on, and on the basis of the above to urge the MOEF to immediately revoke the clearance.
3. As you may be aware, the Maheshwar dam will displace thousands of people by flooding large tracts of fertile and irrigated farmland in the plains of Nimad in Western Madhya Pradesh, and also destroy a rich riverine economy based on fishing, sand quarrying, farming, draw-down agriculture and harvesting of drift-wood and other river produce. Thus it is clear, that any rehabilitation plan that seeks to address and mitigate the dislocation and displacement of these communities would need to address the issues of both categories of those who are losing lands and those who are losing livelihoods. That is why the environmental clearance (Annexure- 1 ) given to the Project on the 7<sup>th</sup> of January 1994 required the State government and the Project Authorities to show, in advance of Project construction, the actual and adequate availability of agricultural land to be allotted to the oustees to replace the lands and livelihoods in submergence. Similarly, the clearance of 7<sup>th</sup> January 1994 required that this (land) package be extended to landless laborers, encroachers and adult sons.
4. It may also be noted that the Narmada Water (Amendment) Scheme 1987 notified by the MOWR on the 3<sup>rd</sup> June 1987 under Section 6A of the Inter-State Water Disputes Act, 1959 brought the rehabilitation of the oustees of the Maheshwar Project as well as other projects in the Narmada valley under the NWDTA, and that required the NCA to ensure compliance with the original conditions of the clearances regarding rehabilitation and resettlement of the oustees of the Narmada dams.



5. The environmental clearance dated 7<sup>th</sup> January 1994 stated  
*"The rehabilitation and resettlement of the project affected people should be completed by 1997-98 as proposed by extending the compensation package to the major sons, landless labourers and encroachers. The land capability surveys should be undertaken and completed in the identified areas to ascertain the suitability of the land for agricultural purposes before rehabilitation sites are finalized."*
6. Further, the clearance stated  
*"..the project should be initiated only after ensuring that arrangements to execute the mitigative measures have been made as a part and parcel of the project."*
7. In 1994, the Environmental clearance for the Maheshwar Project was given after two previous refusals based on availability of land concurred by District Collector Khargone. The 2001 transferred clearance acknowledges the same. It states "The availability of land in various villages was concurred by Collector, Khargone, in 1993, prior to environmental clearance."

**(A) NBA verification finds lands unavailable**

8. In 1997-1998, the oustees and the NBA verified these lands and found that they were fudged, concocted and imaginary. The 1171 ha. of land found to be available for agriculture and resettlement by the District Collector included both Government lands and private lands. However the NBA found on verification that the Government lands in question are the eroded waste lands at the edge of the river which would be submerged or encircled by waters before the village was submerged, and hence were simply not available for rehabilitation and resettlement purposes. Regarding the private lands mentioned, it was found that the Government had never solicited purchase of private land so the figures were based on no real offers but rather were imaginary.

**(B) Research Report of Tata Institute of Social Sciences (TISS) confirms non-availability of land**

9. In July 1998, Dr. S. Parasuraman, erstwhile member of the faculty (currently Director of TISS), and a group of researchers from TISS prepared a Report on the Displacement and Resettlement Aspects of the Maheshwar Hydro-Electric Project. The Report concludes "The Government of Madhya Pradesh has not demonstrated that it has land to provide even to those who are entitled to receive land even as per the current R&R package. The GOMP has identified waste lands spread over Nimad region. .. In fact, close examination of lands identified to be available and suitable for cultivation has been proved to be wrong."
10. In fact, the TISS researchers examined the Collector's claims against actual government land situation in every village and found the claims wrong.
11. The Report states  
 "A careful examination of the claims made by the Government regarding the land available for the purpose of R&R of the project affected areas reveals a number of problems. These relate to the claims of private land (PL) as well as Government land (GL) that have been shown as being available for R&R. A limited preliminary survey of some of the sites reveals that most of the holders of private land are not even aware of the R&R programme and/or are not willing to part with their lands for the same. At the same time many of the sites of Government land that have been shown to be available are either already in the submergence zone, being at lower levels and close to the river or are rocky, spread over hillocks and are uncultivable. Further there are many sites where

the Government lands have already been encroached and in many cases, the encroachers even hold titles.

Sites where private landholders were not aware of R&R programmes and /or not willing to part with their lands:

Maheshwar Tehsil : Bhasunda, Gogawa, Digar, Pathrad Khurd, Chirakhan, Pitambli

Kasrawad Tehsil : Nagawa, Bakawa, Khedi, Kakriya, Pitnagar, Toksar, Ali Bujurg.

Sites where GL claimed to be available for R&R lies in the submergence zone and thus will not be available:

Maheshwar Tehsil : Sulgaon, Balapura, Gogawa, Digar, Lalpura, Pathrad, Bahegaon, (submerges in monsoon), Pandyaghat, Pitambli, Sitoka, Bharpura, Khgaon, Gangatkhedhi.

Sites where the land identified PL, or GL is rocky, too hilly, prone to erosion, degraded and thus mostly unfit for cultivation :

Maheshwar Tehsil : Sulgaon, Bahegaon

Barwah Tehsil : Semurla, Muralla (yellow soil), Ramgarh, Nagawan, Mardana.

Sites where the GL identified has already been encroached, in most cases for as long as 15 to 20 years now and /or where encroachers have been titled :

Maheshwar Tehsil : Jalud, Bahegaon, Pitmbli, Nimgul

Kasrawad Tehsil : Sasabarud (all lands are titled) “

12. The Report note that the lands were not available for R&R and the claims were “baseless” and “imaginary” and the figures were “unreal” and “false”. (Conclusions and Table annexed as **Annexure - 2**)

**(C) Petition by the NBA to MOEF on the matter of false land availability figures and other issues**

13. On 17.8.1998, the NBA wrote to the Secretary, Ministry Of Environment and Forests:  
 “The first concern about R&R is regarding land availability for rehabilitation and resettlement. On the basis of an examination of the Government documents and detailed surveys, the NBA has come to the conclusion that the Government document regarding land availability on the basis of which the environmental clearance has been given is completely and fully false. The Government lands detailed in these documents and stated as available for resettlement are all located along the river side and come very much in the submergence zone. ..Yet this document has been signed and verified by the Collector of the Khargone District and forms an important basis for the environmental clearance.... We believe that this fraudulent action of submitting a “verified” report based on entirely false data by the State Government and the District authorities is a serious lapse....seriously undermines the basis of the environmental clearance, and (we) demand an immediate revoking of the environmental clearance for the Maheshwar Project.”  
**(Annexure - 3 : Petition of the NBA dated 17.08.1998)**

**(D) Tour Report of representatives of three Central Ministries commissioned by the Ministry of Environment and Forests conforms non-availability of land**

14. In response to the petition by the NBA, the MoEF wrote to the NBA on the 9<sup>th</sup> of October 1998, stating that  
 “This has reference to your letter dated 17.08.98 on the subject. The Ministry has decided to send a team consisting of representatives of Central Water Commission, representative of Ministry of Rural Development and representative of this Ministry to ascertain the field status on implementation and environmental conditions particularly the R&R problems.”

15. The team visited the submergence area on the 14<sup>th</sup> and 15<sup>th</sup> of October 1998. The Project authorities were not able to show the team any of the land that had been verified and certified by District Collector Khargone. They could only show around 7 hectares of rocky and barren land in Samraj village on which they were pouring top soil to make it seem cultivable land.
16. The Tour Report of the Ministry of Environment and Forests states in this regard  
 "The team visited "Samraj Ki Bedi" which is a stony and barren hillock on which agriculture is quite impossible. This hillock also constitutes almost all the pasture land of Village Samraj. It also provides small plots of titled and non-titled cultivators numbering 34 families mostly belonging to Harijans and tribals.... The team also visited the crop demonstration plots at Village Samraj Ki Bedi along with officials of project authorities and Madhya Pradesh Electricity Board. The Project Authority has sown Jowar in an area of 7 ha. This entire area is not worth cultivation due to the rocky nature of the soil. .. As the topography of the soil is undulating , it is likely that heavy monsoon rains may wash away the topsoils spread over there and make the soil again infertile. This does not seem to be a permanent solution to transform a barren land into a cultivable one."
17. Further, it states "The team suggests that Project authority should furnish the following documents and information, before a decision for revocation of environmental clearance (as suggested by NBA) is taken by MoEF. .... For the other remaining villages, the resettlement areas along with the agricultural land should be identified and intimated to the concerned villagers as well as to this Ministry within three months."
18. Thus it was clear to the MoEF as far back as 1998, that the agricultural lands "verified" by the District Collector Khargone on the basis of which the environmental clearance was given were not available, and were mainly imaginary figures.  
 (Annexure - 4 : Tour Report of MOEF dated 1998)

**(E) Report of the Task Force of the Government of Madhya Pradesh of 1998 confirms lack of availability of land**

19. In 1998, a Task Force Committee was set up by the Government of Madhya Pradesh to review all the large dams in the Narmada valley including the Maheshwar Project. The Task Force Report stated "A doubt has also been raised regarding the availability of adequate land to follow the principle of land for land. The task force was informed of some land identified for the affected families but no assurance for the availability of adequate land was given to the task force. Hence we came to the conclusion that at present adequate land area has not been identified to enable allotment to all affected families."  
 (Annexure - 5 : Report of the Task Force Committee set up by GOMP)

**(F) Report conducted for the Ministry of Economic Cooperation and Development, Government of Germany, June 15<sup>th</sup>, 2000 confirms lack of land availability**

20. In June 2000, the Ministry of Economic Cooperation and Development, Government of Germany that had been asked to give a guarantee to a large bank loan from a private German bank for the Maheshwar Project sent a team to ascertain the situation of R&R in the Maheshwar submergence zone. The team led by Dr. Richard Bissell, chairman of the World Bank's inspection panel, spent 4 days in the Project area along with the Project authorities as well as the oustees and the NBA and a few other days at Delhi and Bhopal meeting officials and experts.
21. The Report confirmed that there was no availability of land. It stated:

"When the survey is redone and the issues raised in Section 3 above are taken care of, as they must, the number of eligible families may go up even further. Therefore the requirement of just agricultural land for meeting the obligation under the R&R policy, under the related conditionalities of the MOEF and under the requirement to make the policy adequate (as detailed above) would be many times higher than the currently calculated requirement of 1172 ha., the exact quantum becoming clear only after a fresh survey has been conducted. As of now, only 25 ha. of agricultural land has been acquired by the project at Samraj. This is also not cultivable without treatment ... According to the Principal Secretary (Energy) GOMP, (meeting on 1 June 2000) there is no agricultural land available in the area, for whatever land there is has been cultivated or encroached upon."

**(Annexure - 6: Report for German Development Ministry 15<sup>th</sup> July 2000)**

**Transferred clearance of the Ministry of Environment dated May 1, 2001**

22. However, instead of revoking the environmental clearance when the land availability details were clearly wrong, on May 1, 2001 the MoEF transferred the clearance to the S.Kumars.

23. The clearance noted "The availability of land in various villages was concurred by Collector, Khargaoan, in 1993, prior to environmental clearance". However it required "A complete R&R Plan with details of proposed housing units, agricultural land identified/required/developed, implementation schedule, etc. should be submitted to this Ministry by December, 2001." However the same was not done by December 2001.

**(Annexure - 7 : MOEF Clearance dated 1<sup>st</sup> May 2001)**

24. The Report of the Monitoring Committee constituted by the MOEF visited the area by 15.01.2002. However no land could be shown to it. Their Report said "The Monitoring Committee desired to have a complete R&R Plan with the details of proposed housing sites. Agricultural land identified /required /developed. The Project Authority informed that as and when financial closure takes place, the above said Action Plan would be prepared and submitted to the Monitoring Committee as also to the MoEF." Thus even by 2002, it is on record that the land availability details were not given to the MOEF. **(Annexure - 8 : Report of the Monitoring Committee dated 15.01.2002)**

25. In the circumstance that dam work has begun in the last few months without any land availability details or R&R Plan based on proposed housing sites, agricultural land, etc submitted by the Project authorities to the MOEF, and the old fiction of the land figures "verified" by the District Collector on which the environmental clearance is based has been repeatedly exposed through the various Reports of the Central and State Government as well as various credible authorities and institutions, the MOEF must immediately revoke the clearance and direct the Project work to stop.

26. Thus although the fiction of the land figures verified by the District Collector on which the environmental clearance is based has been repeatedly exposed through the various Reports of the Central and State Government as well as various credible authorities and institutions, and the MOEF is well aware of the same, the current dam construction is still based on these imaginary and fraudulent figures.

**(Annexure 9 - A and B : Letter of MOEF dated 4<sup>th</sup> May 2006 and letter dated 14.03.2005 asking for information re : Maheshwar Project)**

27. Therefore the dam work has to be immediately stopped, the land figures must be collectively verified by the MOEF, GOMP, oustees and NBA and the Financial institutions such as HUDCO, etc whose financial participation is being sought for the Project, and if

the lands are found to be non-existent or unusable for R&R, the environmental clearance must be revoked.

### **Exclusion of thousands of Dalit, Kewat and Kahar families from PAF list**

28. The deliberate and willful exclusion of thousands of families living in the Maheshwar area based on the traditional occupations such as fishing, draw-down cultivation, sand-quarrying, etc in the riverine economy from the reckoning of rehabilitation and resettlement and their deletion from the later MOEF clearance of 2001 is also a crucial question and designed to favor the SMHPCL.
29. As mentioned above, the environmental clearance dated 7<sup>th</sup> January 1994 given by the MOEF to the Maheshwar Project stated  
*"The rehabilitation and resettlement of the project affected people should be completed by 1997-98 as proposed by extending the compensation package to the major sons, landless labourers and encroachers. The land capability surveys should be undertaken and completed in the identified areas to ascertain the suitability of the land for agricultural purposes before rehabilitation sites are finalized."*
30. Thus it was clear that the land package had to be extended to them as well. In fact, the Tour Report of the representatives of the 3 Central Ministries (CWC, MOEF, MORD) sent by the MOEF in 1998 to assess the compliance with the MOEF clearance, describes the rich river economy thus :

"Shri Amar Singh, son of Shri Mangilal, caste Kahar informed the team about sand extraction. The sand mines are spread over a stretch of about 12 km. along the river Narmada and is mined by the local population particularly Dalits and Kahars. In a few villages, Kewats and Muslims are also involved in sand-mining. Shri Singh works as a laborer and earns about Rs. 400 per day. He informed that three or four laborers work in a group to load a truck and charge Rs. 400 per truck for loading. The amount is equally distributed among the laborers. One group of laborers loads average five trucks a day. One truck load of sand is sold in the market for Rs. 3000 or more. ..The team was also informed about fishing activities. Some of the common fish available in the area are – Ban, Maniyar, Jhinga, Gegra, Singhi, Gholi, Molia, Rohu, Bhadas, Nalan, Katla, Khatti, Godoti, etc. The fishermen form a partnership of two and catch fish. On an average they catch 4-5 kg. of fish every day which are sold in the local market @Rs. 20 to 40 per kg. depending on the variety of fish. ....Team also visited the river bank to see the standing crops and sand extrcation process. The growth of the standing crop was quite good. Though the river bed was not completely dry yet the extraction of sand was taking place. The Kewats and Kahars are having good income."

31. In January 2001, the village Panchayats in the 61 villages and the NBA enumerated the numbers of persons involved in fishing, sand-quarrying, and other riverine occupations, and submitted the list of nearly 5177 such persons to the MOEF, asking the MOEF to take cognizance of the magnitude of the impact and ask the Project authorities to include these families in the Project Action Plan. Clearly, these families would also become entitled to 5 acres of agricultural land.
32. It may be noted that the Section 1.1 of the Rehabilitation Policy defines Displaced family thus

*" Any person who has been ordinarily residing or carrying on any trade or vocation for his livelihood for at least one year before the date of the publication of the*

*Notification under Section 4 of the Land Acquisition Act or has been cultivating land ...*

33. However the MOEF responded to the issue of the river-workers and their entitlements brought to the fore by the NBA by firstly, misquoting the definition of "displaced families" given in the GOMP Rehabilitation Policy to exclude persons dependent for their livelihoods on the submergence area from the definition of "displaced families", whereas there has been no such change in the Rehabilitation Policy. Secondly, it excluded the explicitly worded clause in the 1994 clearance referring to the extension of the compensation package to the landless, encroachers and adult sons altogether from the new 2001 clearance, an act that was in violation of the MOWR Notification dated 3<sup>rd</sup> June 1987 that required compliance with the conditions of the clearance at the time of the clearance of the Project, as well as the original Environmental clearance of January 1994 that permitted additional safe-guards (and not deletions). Thirdly, the MOEF did not respond to the lists of river-workers given to the MOEF in January 2001 and to the Monitoring Committee constituted by the MOEF in 2002 at all and attempted to stonewall the entire issue.
34. It may be noted that the Environmental clearance given to the Project in 1994 states " ... *and the Project should be initiated only after ensuring that arrangements to execute the mitigative measures have been made as part and parcel of the project.*" However it is clear from the above that there is neither any detail of land nor rehabilitation plan for the affected people of Maheshwar, yet the work on the Project is being re-started. Clearly the fraudulent figures for land and the omission of the category of displaced families which includes those dependent on the riverine economy is both inhuman and illegal.
35. The MOEF has not taken into account the water-logging that will extensively take place in three areas around the reservoir as per the Friends of Nature Society Report commissioned by the Project authorities for the MOEF, and that the affected persons of these areas will need to be included as Project affected persons as well.
36. The MOEF clearance also states that R&R would be done only till MWL (Maximum Water Level) whereas this must be done up to BWL as per Orders of the Honorable Supreme Court.
37. Ms. Misha Singh had requested the MOEF for file inspection and land details 1.5 months ago, on behalf of the NBA but the MOEF has not responded to their requests nor demonstrated its accountability for the R&R of the oustees. Now on the 4<sup>th</sup> of May 2006, 1.5 months after an application for information was made to them about land details and R&R, the MOEF has responded to state that "I am directed to refer to your application dated 14.03.2006 on the above mentioned subject and to say that the main files relating to environmental clearances accorded to Maheshwar HEP, Madhya Pradesh could not be located."

This is totally unacceptable and there is no doubt that when MOEF has neither land availability plan nor a R&R plan and is not in a position to monitor the Project and ensure compliance with the conditions of the clearances, there can be no question of any further dam construction. The MOEF must immediately revoke the clearance to the Maheshwar Project.

**Individual accountability of officer's for malafide decisions:**

38. I will also like to bring to your notice a Judgment of the Hon'ble Supreme Court of India in the case of Lucknow Development Authority Vs M.K. Gupta reported in AIR 1994, SC at page 787. In this case the Hon'ble Supreme Court had the occasion to consider the liability of the public servants for their oppressive and malafide acts which cause injustice

and harassment to the common man. It was held in the said judgment that when a public servant by malafide, oppressive and capricious acts in performance of official duty causes injustice harassment and agony to common man and renders the State or its instrumentality liable to pay damages to the person aggrieved from the public fund and the State or its instrumentality is duty bound to later recover the amount of compensation so paid from the public servant concerned. It was also held in the said judgment that action of the Public servant should be for sake of society though arbitrary, capricious or oppressive action of the Public Servant may harm an individual personally but it produces worst impact on the society and therefore loses its individual character and assumes social significance. To put in the words of the Hon'ble Supreme Court:

*"A public functionary if he acts maliciously or oppressively and the exercise of power results in harassment and agony then it is not an exercise of power but its abuse. No law provides for protection against it. He who is responsible for it must suffer for it. Compensation or damages may arise when even when the officer discharges his duty honestly and bonafide. But when it arises due to arbitrary or capricious behavior then it loses its individual character and assumes social significance. Harassment of a common man by public authorities is socially abhorring and legally impermissible. It may harm him personally but the injury to the society is far more grievous. The award of compensation for harassment by the public authorities not only compensates the individual, satisfies him personally but helps in curing social evil. It may result in improving the work culture and help in changing the outlook."*

39. Therefore, I am now serving you a legal notice on behalf of my client. It is clear from the above mentioned facts that the Project is sought to be financed and pushed ahead only by camouflaging the reality of the Promoters and the Project. Therefore, in the absence of a R&R plan with details of availability of land for resettlement and agricultural land for rehabilitation and exclusion of thousands of families of Dalits, Kewats and Kahars from the reckoning of the Project affected, we call on MOEF to immediately revoke the environmental clearance given to the Maheshwar Hydro-Electric Project. We will be grateful if you will reply to this notice in the next two weeks, failing which we will decide about further action on this issue.

Yours sincerely,

Prashant Bhushan

**NATIONAL COMMISSION FOR WOMEN**

**REPORT OF THE INQUIRY**

**IN RESPECT OF VIOLENCE, ARREST, AND USE OF FORCE  
BY POLICE AND OTHERS AGAINST WOMEN DEMONSTRATORS**

**AT MAHESHWAR HYDEL PROJECT SITE**

**ON 22 AND 23 APRIL 1998.**



### Background

While the members of the National Commission of Women were in Bhopal for a visit on 24/4/98, they were approached by representatives of many NGOs and women's organizations, such as Madhya Pradesh Mahila Manch, Janwadi Mahila Samiti, Mahila Federation, Ekta Parishad and Bhopal Gas Peedit Mahila Udyog Sangathan, etc. for redressal of their complaint in respect of incident of police violence against peaceful demonstrators at the Maheshwar dam site (Annexure- 1).

The next day, the Chairperson, Dr. Mohini Giri, and Member, Dr. Syeda Hameed were in Indore where they were met by some citizens of Indore and a delegation of men and women from the affected area who had been victims of violence. These people had definite visible physical injuries which could have been made by some blunt instrument. In all, seven people appeared before the Commission of whom five, namely, Durga Bai, Sita Bai, Dwaraki Bai, Shyama Bai and one Suresh Patidar had sustained injuries.

On the spot the Chairperson decided that the matter deserved investigation because women complained of being manhandled, abused, and battered at the hands of male police. Reports from the press indicated that hundreds of women had been jailed and at least eighteen were hospitalized.

Consequently, Dr. Syeda Hameed undertook a spot tour of the area on 25th of April 1998. She was accompanied by Ms Sandhya Vyas, District Women and Child Welfare Officer, Indore, and Ms. Kalpana Mehta. Hereinafter they are referred to as the Investigating Team.

### Events leading to the current crisis

Maheshwar Hydel Power Project, approved by the State Government is coming up at Jalud, a village near Mandleshwar town on river Narmada in the Khargone District of Madhya Pradesh. Local people who are going to be affected by the project, and whose land is under threat of submersion have been protesting against the project for some months now, under the aegis of Narmada Bachao Andolan.

As per government estimates, 61 villages are expected to be partially or fully submerged involving loss of livelihood to 13000 people. According to Narmada Bachao Andolan these figures are a gross underestimate because they ignore the question of lives of landless and migrant

labour who find abundant earning opportunities in the valley. The land in the area is extremely fertile and other than their own needs, people are able to cultivate a number of cash crops. Those without land can contract patches of riverbed land seasonally for cultivation, even the sand quarries provide livelihood for many.

All through 1997, the people of the area held demonstrations and tried to engage in dialogue with representatives of the government and S.Kumars, the company handling the project, but received no information about the extent of displacement and arrangements for their rehabilitation. Finally, in January 1998, the villagers occupied the dam site and staged an indefinite sit-in. As a consequence, the State Government ordered a review of the project. A Task Force was set up and all construction, land acquisition etc. in respect of the dam site and the powerhouse were ordered to be halted till the review was over (Annexure - II). June 30 was fixed as the date for the submission of the report of the Task Force.

At the end of February, S.Kumars made a plea that they be allowed to construct a safety wall so that the digging work undertaken by them in the preceding months was not lost with the onset of the Monsoon. Narmada Bachao Andolan, which is a member of the Task Force, protested against this plea saying that this safety wall was unnecessary and was, in fact, a facade to continue construction even as the Task Force was carrying out its work.

Nevertheless, the State Government allowed the construction of the wall through an order issued on 11th March. This changed stance of the Government evoked a fresh round of protests by the villagers in March and early April. The Government kept making placating gestures but its intentions were clear in that men and machinery were allowed to be brought in for construction of the disputed wall. Consequently the villagers intensified their struggle and a thousand strong police force was deployed at the site from the beginning of April.

The villagers decided to launch a Satyagraha from 22nd of April 1998.

It must be noted that the other part of the 11th March order, which dealt with rehabilitation related work was not acted upon by the government. While pits were being provided with safety, people were being made to live with growing hardships and insecurities. The Government promised that it will provide land for every family to be displaced, people

suspected that the government land will be submerged even before their own land and that this promise is just an eye wash. Evidently, the government has not provided a master plan for protection of their rights. The only clearly laid down plan is for the rehabilitation of the people of Jalud. They are to be rehabilitated at Samraj ki Bairi, but people complained that they were being provided barren rocky tracts which are uncultivable, or are already allotted to Scheduled Caste families, or have already been encroached upon. Instead of getting rehabilitated, the residents of Jalud and Lepa, the two villages closest to the dam site, on either bank of the river, are facing new problems because blasts are causing cracks in the walls of their existing houses and fencing undertaken for construction work has cut them off from the river and their own fields.

Version provided to the Investigation team by Narmada Bachao Andolan and others

The team was informed that the demonstrators were fully aware that the area had been placed under Section 144. All the same the villagers peacefully occupied the construction site on the morning of 22nd at 5.A.M. The Satyagrahis were led by women. The Collector exercised undue repression and disallowed even water tankers to reach the site thus making people drink contaminated water from the pits. Only at 5 P.M in the evening a water tanker containing tepid water was allowed to reach the demonstrators. Soon afterwards, in the presence of Mr. Bhupal Singh, Collector, Khargone, the police started removing people forcibly from the site of the Satyagraha. Only 11 policewomen were present and the policemen manhandled women protesters who were present in large numbers. The policemen pushed and pulled women, tore up their clothes, raised their saris and blouses, their bundles of belongings were mercilessly thrown away. Women were beaten up and walked over by the police who pulled out their jewellery and abused them. This abuse and violence continued even after women were thrown into buses meant for taking them to the jail. Hundreds of women were arrested and jailed but proper arrest documents were not drawn up. Men and women were made to share quarters causing untold suffering to women (Annexures -III and IV).

The maximum number of women, 366 as per jail records (along with 329 men) were housed in Maheshwar jail, which had never been used till then and was devoid of facilities such as water, food etc. The Maheshwar Jail, meant to have a capacity of only a hundred convicts

housed more than seven hundred demonstrators for three whole days. The detainees were presented before a team of three officials where they recorded details regarding the loss of their belongings as well as of injuries. Copies of complaints were not provided to the detainees. No entries were made in the jail register either at the time of arrests or at the time of their release. Two women who were injured were not hospitalized despite repeated requests, (They also deposed before the Investigating Team). One of them was Sakhu Bai of village Mardana, who had her tooth broken because of being punched at by the police and the other was Rama Bai of village Behgaon who had a nasty gash from her Mangal sutra being yanked off. Nine women and one man were removed from the jail and hospitalized. Not all the arrests were made from the site. In fact, 18 men were arrested from Jalud from their homes or fields and were not even participating in the Satyagraha.

On 23rd April, once again a fresh batch of men and women entered the dam site to offer Satyagraha. Even as they were entering the area, the police became aggressive and started beating up people. Around 200 Special Task Force (STF) Police, a thousand odd policemen and some mounted police cornered women from two sides and drove them into the river beating them up very badly, charging at them on horses, and hurling sexual abuses at them while threatening them with sexual violence. Many women fell down and the police trampled over them. No policewomen were present. SDO(P) Shri Anjana was present on the spot when the police teargassed the crowd and fired in the air to disperse it. Finally, the women and men were driven into the river and were arrested from an island where they had taken refuge.

This whole incident was filmed by a video magazine group from Nasik by the name of Abhivyakti. The police seized the camera and beat up the media people (Annexure - V).

Khargone jail was used primarily for housing those arrested on the 23rd. The violence that day was much more severe as compared to the previous day but no one was hospitalized that day. In all 29 women and 224 men were kept in this jail. After their release NBA volunteers had to seek medical attention for them and one of them had to be hospitalized on the 25th. Fourteen people were brought directly to the hospital on the 23rd April without being jailed, ten by the police and four by villagers.

The other jails used were Mandleshwar, which had 221 men and 120 women, Kasravad jail which had 84 men arrested on the 22nd and 14 on the 23rd. The food in the jail was insufficient. There was delay and reluctance in providing medical attention. In Kasravad seven people were forced to provide bonds for Rs. 500/- for their release.

NBA representatives expressed a fear that S.Kumars are paying for the upkeep of the police whose task is not to maintain law and order for the people but to provide protection to the company and its operations.

### Official version

The Investigating team met the I.G., the Collector and the S.P. who stated that the arrests were peaceful. They had filmed the entire incident and insisted on showing the video recording to the team. It showed the S.P. giving detailed instructions to his men not to even touch the women. They said that they had distributed sweets to the demonstrators and had provided them with water. The Collector also stated that he had no role in issuing of prohibitory orders. The official video ended showing the demonstrators peacefully walking straight to buses and entering them without the use of any force. The team was informed that contrary to NBA's claim there were thirty policewomen in all.

The administration had suggested that violence had been initiated by a stone pelting mob and the police had just acted in self defense. There was no firing whatsoever. The government had also claimed that several policemen had been injured due to mob violence, but the Collector and the S.P. did not make a mention of these injuries. The M.O. in-charge stated that some policemen had been brought in but none of them had serious injuries.

### Findings from the field:

The investigating team visited the dam site, Mandleshwar jail, Mandleshwar hospital and Maheshwar hospital.

#### Visit to the Dam Site

At the site they were informed that the safety wall of 18.5 crores was being built to save pits which had cost just 14 crores to dig. The team noted that this safety wall was being constructed despite the fact that the review was far from complete which did not seem logical unless the

end result of the review were already known. The contracting company for the construction was from Hyderabad, who had brought all the way from there more than two hundred unskilled workers. They told the Investigating Team that this was because their labour was reputed for doing good masonry work at dam sites, hardly a plausible explanation considering that a mason not an unskilled worker ! Every one the team spoke to at the dam site had no awareness of what had gone on during the two days in question. STF jawans were walking around when the Investigating team visited the site. They insisted that as soon as the violence had started they had got into their vehicles and sat tight. They told the team that the police force had been increased by another five hundred men in the intervening period of two days.

A few persons said that they had been around on the 22nd till 4P.M but had not witnessed any violence. It must be noted that due to the prohibitory orders there are no independent witnesses to the scene.

#### Visit to the Jail

By the time the investigating team reached Mandleshwar Jail the demonstrators had been freed, as per the functionaries present at the jail and the record that were examined by the team, the demonstrators had been brought in starting at 2:30 pm on 22nd. The release started on 25th morning and had got over just before the investigating team arrived at the jail. The team was informed that the process of release was still continuing at Maheshwar jail. In order to meet the demonstrators the Investigating team decided to go straight to Maheshwar.

#### Visit to the Mandaleshwar Hospital

Enroute they found a large crowd waiting for them at Mandleshwar hospital. This basically comprised of people who had been released from Mandleshwar jail. Among those present, several women showed their torn saris and complained of having been beaten up and manhandled by the police. They had bruises similar to the ones shown by those who had appeared before the Commission in Indore. Men and boys were also injured in large numbers. People who were slightly or moderately injured numbered in the hundreds. Rama Bai of village Behgaon and Saku Bai of Mardana showed their injuries to the Investigating team. The team was then taken to the wards where there were fourteen men still admitted. Some of these had been brought there by the police, some from the jail and some by other villagers. The Investigating team visited a ward where five of them were lodged.

These men were seriously injured, some on the crown, and some on the soles of their feet and on their legs. One of them wore a shirt which was caked with blood.

Three other men occupied the beds in the corridor of the hospital. Two of them had very peculiar injuries on the top of their feet as if they had been trampled upon. When the team asked the M.O. in-charge how such injuries could possibly be sustained, he replied, among other things, possibly by a fall. When asked whether he had witnessed such injuries arising out of a fall he did not answer the question but called the surgeon on his team to explain the injury. When asked whether he had seen injuries suffered in a stampede he said "no". According to the M.O. in-charge no policeman had been injured seriously and, in all only three had come to the center for treatment. None of the demonstrators had suffered serious injuries either according to the doctor.

Those released from Maheshwar also arrived at the Health Centre while the team was there. All the people present there were the ones who had been arrested on 22nd and had little idea about what transpired on the next day.

While visiting the hospital, the Investigating Team met several people from Jalud. They informed the team that the arrangements made for them at Samraj ki Bairi were highly unsatisfactory. They said that the hillock was a stone face, uncultivable and a small part of it was already encroached upon. They also said that they had lodged a protest against this arrangement.

#### Visit to the Maheshwar hospital

From the Health Centre, the Investigation Team proceeded to the Maheshwar Hospital where the injured women were still admitted. They learnt that on 22nd April, nine women and one man were admitted to the hospital by the police. One of the women, Smt. Pramila Bai of Sulgaon, could barely speak. She had clear injuries on her finger and toes and said that she had been hurt in her ribs. Five women were still in the wards when the team visited the hospital and were in a bad enough state not to be discharged. They were complaining of being abused, beaten up, having their jewellery snatched and their clothes torn off by the police.

### Visit to the district officials

From the hospital the Investigating team returned to Mandleshwar to meet the Collector and the S.P. who said that they were happy to meet them and only if the member of NCW (Dr. Hameed) had just asked for them, they would have come out and met her in the afternoon when she had come to the Rest House. It should be noted that the Investigating Team had made its first stop at the Rest House so that it could meet the officials before proceeding to the dam site. At that time, they only found the Additional Collector( Smt. Suraj Damor) who had stated that she had no intimation about the arrival of the NCW team. By their own admission, it is evident that the Collector and the S.P. were also present at the Rest House but for whatever reason did not come out to meet the team nor made their presence known.

The two officers were very keen to show the Investigating Team a video of the whole proceeding. They kept repeating that once they saw the film they would not have any further questions left !. By then it was already past eight in the night and Member had to return to Indore in order to catch an early morning flight to Delhi. Hence entire the video could not seen. The team watched for a total of 45 minutes. Excerpts were suggested by the Collector and the S.P. were watched. These included the briefing of the police and the STF on the evening of the 21st and various scenes at the Satyagraha site. The briefing was detailed and the policemen were told specifically not to touch any women with their hands. Some policewomen and STF personnel could also be seen at the briefing. The last scene was that of the demonstrators peacefully entering the buses well past 5 P.M as shown in the video clock. On the suggestion of the team, The Collector and the S.P. accompanied them part of the way back so that they could discuss matters more fully.

When the team was driving out of the gate, they saw some women waiting outside the Rest House. They got down from the car and found that these were women who had been injured in the violence perpetrated the 23rd. The women were emphatic that on that day no policewomen were present. They were beaten up by the STF, chased by mounted police and made to run into the river. They went to describe the incident of teargassing and firing in the air.



## Findings

### 1. Violence:

The team found that there were a large number of men and women who had sustained extensive injuries on both the days in question. It was also established beyond doubt by records (such as the jail register) that a large number of women were present at the Satyagraha and the number of policewomen was highly inadequate to handle them even if the figure of thirty policewomen provided by the S.P. is taken to be the correct number. It is also clear that on the second day there was teargassing as was also admitted by the Chief Minister before the State Assembly.

On the question of when and how these injuries could have been sustained, the following needs to be considered. The administration claims that the whole operation on the 22nd was peaceful. If indeed this was the case, how did so many people get admitted to the hospital and how did many more have visible injuries? One possibility is that they got hurt later in the jail. But the jailer did not report any squabbles in the jail and also the people did not claim any violence by jail authorities. The second possibility is that they could have been injured after their release but this was also not the case either because the Investigating Team met them as they were coming out of the jail. Further more, a substantial number of those hospitalized was brought to the hospital either by the police or by villagers on the 22nd. In other words, there is every possibility that these hundreds of people who appeared before the Investigating Team had been injured at the dam site on 22nd. This raises serious doubts about the veracity of the official version which denied violence on 22nd altogether. Given the location of the injuries and the size and shape of bruises in most cases, it is difficult to accept the version of the Medical Officer that these injuries could have been sustained in the course of a fall.

In so far as the 23rd is concerned, the administration claims that the crowd became violent and started pelting stones which evoked a violent response from the police. If indeed the police was responding to a violent crowd there should have been some injured policemen to show for it. Secondly, it should be noted that at the dam site the Investigating

Team did not see many stones which could have been pelted, although it did see huge boulders brought in for construction. Thirdly, NBA is a known and respected organization which adopts forceful but non-violent means of protest making it unlikely that the Satyagrahis would have brought stones with them for attacking police. Finally, this is not the first demonstration held by these people and on earlier occasions they have never shown violence. Hence it is not clear as to why the administration was expecting violence in this Satyagraha for which it was giving such detailed instructions to the police. All in all, it is difficult to accept the official version of violence being initiated by the crowd.

The making of a video of the police briefing in such detail also casts doubts about the official version. When the police force was so well prepared why did the S.P. not summon a larger number of police women? In the past also women have demonstrated in thousands in this area. The Satyagraha was not sprung as a surprise, then if a videographer could be organized why not an adequate number of police women be brought in to arrest women who were violating the prohibitory orders?. Prima Facie this seems to be an instance of misguided priorities in managing a law and order situation. Also if the police was being told not to be on the offensive with the women, and the situation was expected to turn violent then the police should have been provided with shields rather than with unlimited freedom to beat up demonstrators.

The briefing itself is a good example of how one sided the police and the administration were. In the briefing the S.P. told his men at length about the right of S.Kumar's and his labourers to continue with their work and compared it to the right of the activists to protest. Of course he did not mention or link the two to the breach of promise on part of the government which had brought these two parties to a confrontation, in the first place.

The investigating Team found a major discrepancy between the records of the police and these of the jail authorities. The jail records at Mandleshwar show the time of the arrival of the arrested people as 2:30 pm. As per the video shown to the Team and the verbal accounts of the S.P. the arrests are supposed to have taken place past 5 p.m. Given that the distance between the jail and the dam site, it would have taken at most half an hour for the detainees to have arrived at the jail. Which means that they should have arrived in Jail at 5.30 p.m. and not 2.30 p.m. How could they have arrived in jail at 2:30 pm and got

arrested 2 1/2 hours later at 5 p.m.? Logical absurdity. If both records are correct then the only possible explanation is that arrests were not limited to the prohibited area alone. Seen in conjunction with the complaint of the NBA regarding Jalud residents being arrested from their homes and fields this becomes a serious matter. This discrepancy raises ~~many~~ doubts about the authenticity of the official version.

The full extent of the injuries suffered by people is still not known because of the different times at which people were released and because some managed to escape arrests. The NBA informed the NCW that by 27th it had lodged 49 FIRs which 15 relate to women.

When the Investigating Team asked the Collector why so many complaints were being made if indeed there was no violence, he said that the organization was trying to derive mileage out of the event. But even he had no explanation for the large number of people injured.

The Investigating Team requested a copy of the video from Shri Bhupal Singh. This was not received until the writing of this report.

## 2. Jail:

The release order was made on 24th as per the jail records. The Investigating Team was informed by them that this order reached the jail only on the 25th and then there was no delay in releasing prisoners. In comparison, those detained in Khargone which is at a distance of nearly 60-70 km from Maheshwar, were released on 24th evening itself and were transported back on 25th morning. People in Kasravad jail were released only on 26th. It should also be noted that all but the seven detainees in Kasravad jail were released unconditionally. This merits further investigation because it is indicative of attempts at intimidating activists while they are in jail.

The matter of keeping women and men in the same enclosure at Maheshwar jail is also a serious matter which requires explanation. The least the authorities could have done was to designate different jails as male and female jails rather than to subject women to this additional hardship.

Last but not the least, it needs to be noted that there was a six hour gap between the announcement of the visit of the NCW Investigating

Team and its arrival at Mandleshwar. It was during this gap that most releases from the jail as well as the hospital took place.

In addition to the above, there are complaints regarding insufficiency of food and water, intimidation by the jail authorities and problems with jail records.

### 3. Loss of belongings:

Many women complained of their clothes being torn by the police and their ornaments being snatched. A list of losses suffered in the Maheshwar Jail is annexed to this report. Besides this, there was a more universal complaint about people losing their bundles containing shoes and other sundry items. Jail records should be a good measure of who managed to arrive at the jail with their belongings.

### Conclusions and recommendations

#### Conclusions :

1. The investigation so far reveals that violence was used extensively against peaceful demonstrators on 22nd and 23rd April 1998 at the Maheshwar Hydel Project site. The violence was not provoked by self defense or used as a means to control an unruly mob. This violence was perpetrated against people who were protesting peacefully against the breach of promise by the government which has gone back on its order to stay all construction till the report of the Task Force is complete.
2. This violence, accompanied by vulgar and sexual abuses, is a big blow to the empowerment of women who have, for the first time, come out of their homes to protect their right to life. Their right to life cannot be equated with the financial losses which may have ensued if there was any damage to the pits.
3. It is pertinent that the administrative circumstances under which the police has acted be investigated formally. This is not the first time that the NCW has been requested to step into investigating excesses by the State in the Khargone district. The last incident was just about seven months ago and comprised of large scale violence, looting and displacement of tribal women. Even at that time the NCW had warned the Government that unless the method and the means to deal with the demands of the people were modified and

and their grievances handled in a just and fair manner there was every chance of creating massive discontent and unrest.

There is every need at this point to handle the review process in a just and fair manner. The government has to abide by its own promise to wait until the report of the Task Force is submitted. Even if the project gets a clearance, a genuine effort has to be made to rebuild the life of people. They should not be left exposed to blasting and free access to their fields, if and when construction starts again. Alternative arrangements have to be made before any displacement occurs. The government has to be proactive and not wait for struggles to be launched before taking cognizance. In the entire process the government should continue to involve the NBA.

Every effort needs to be made to repair the breach of confidence and to redress any injustices done. Doctors should be instructed to examine anyone who comes to them with a complaint. Similarly the police must register complaints, no matter who complains.

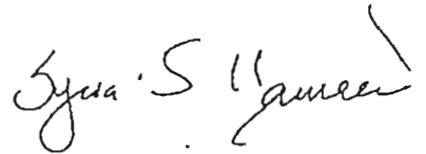
The district administration should not be given the responsibility of maintaining law and order without being involved in decisions which are bound to create problems. It needs to be understood that cost and benefits of a project cannot be seen in isolation from sacrifices being demanded from some of the people.

These recommendations are being made with a view to seeking a solution which prevents the recurrence of such events in the future. It must be recognized that unless statusquo is restored with respect to staying all construction work pending the recommendations of the Task Force in this regard, violence will become a continuing reality in this otherwise peaceful valley.

### Recommendations

1. That the State Government stops all construction including the construction of the safety wall, until the Task Force submits its report
2. That People of Jalud must be provided with immediate access to their fields and to the river by dismantling the fencing.
3. That the State Government must institute a time-bound judicial inquiry and take action against those responsible for widespread violence against people.
4. That the State Government should investigate the circumstances under which people spent their time in jail and take action against those responsible for intimidating them and also against those responsible for making them provide bonds for their release.

5. That the State Government provides compensation to those who have suffered injuries and loss of ~~jewellery~~ and belongings. Jail and hospital records should be used as the basis for compensating people. An ex-gratia amount of Rs. 500/- should be paid to all those who were imprisoned., Rs. 5000 /- should be paid to women who have reported a loss of jewellery and to those hospitalized. Cost of medical treatment should be reimbursed to those who have filed FIRs.
6. That the State government should take action against those responsible for non-delivery of release orders which lengthened the detention of hundreds of people.
7. The state Government should ensure that the presence of police at the dam site is there to protect people, the police should be prevented from becoming a private army working against people.



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New Delhi  
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# MAHESHWAR HYDROELECTRIC PROJECT

## REPORT ON DISPLACEMENT AND RESETTLEMENT ASPECTS

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Contents	Page
1. INTRODUCTION	3
2. SOURCES OF LIVELIHOOD AND LEVEL OF INCOME	3
3. RESETTLEMENT AND REHABILITATION : WHO IS RESPONSIBLE?	9
4. THE REHABILITATION POLICY FOR MHP DISPLACED PEOPLE	10
5. EXPERIENCE OF THE PROCESS OF LAND ACQUISITION AND COMPENSATION	12
6.1 PROCESS OF LAND ACQUISITION - LACK OF CLARITY AND DIRECTION JALUD A VILLAGE UNDER SIEGE	14
6.2 SAMRAJ KI BEDI : SITE FOR RESETTLEMENT OF JALUD VILLAGERS	16
6.3 VITAL LACUNAE IN THE R&R POLICY	17
7. CONCLUSION	20
Appendix 1 : Socio-economic profiles of three affected villages	24
Appendix 2 : Sources of livelihood and their contribution to total income	
Appendix 3 : Process of land acquisition and rehabilitation : Lack of clarity and direction – Jalud village	
Appendix 4 : Rehabilitation process : Adhocism leading misery – A case of Jalud village	
Appendix 5 : Data on resettlement and rehabilitation process	

# MAHESHWAR HYDROELECTRIC PROJECT

## A REPORT ON DISPLACEMENT AND RESETTLEMENT ASPECTS

### 1. INTRODUCTION

In order to assess the condition of people who may be displaced / affected by the Maheswar Hydroelectric project, a survey was undertaken during May to June 1998 by the Tata Institute of Social Sciences, Mumbai. The TISS also had access to large volume of data collected by the Narmada Bachao Andolan.

The TISS survey collected information from 4 representative set of villages spread over entire submerging region both sides of the river. The nature of information collected included sources of livelihood (agriculture, wage labour, fishing, sand extraction, trade and business, service and others) available to people, extent of income from all sources, level of expenditure and expenses related to various items, and peoples' knowledge about the Maheswar project, their perception about the project and impending displacement. In addition to household interviews, TISS conducted a number of focus group discussions and case studies.

The NBA collected information from 35 villages on agriculture, wage labour, income and expenditures. The NBA collected information from all households in all villages where data collection has been completed. The NBA collected data is being analysed. The results from the NBA study are being triangulated in the field.

Incorporating TISS and NBA collected information a detailed report is being prepared. The detailed report will be available by July.

### 2. SOURCES OF LIVELIHOOD AND LEVEL OF INCOME

According 1931 Censis, important castes in Khargone district were Rajput, Brahmins and Bania. While among the other castes, Balai, Kulmi, Ahir, Gujjar, Banjara were important. Among the tribal groups Bhilalas and Bhils were found. The Rajputs predominate in Khargone, and Maheswar tehsils. Their main occupation is agriculture; or they are patels or village headmen. Sirvis (Sirvis) is another cultivating caste, also known as Marus found in this district are also by tradition of Rajput origin. Weaving is their traditional occupation, and Maheswar's weaving industry provided considerable employment. But the gradual decay of the same obliged them to take to agriculture (District Gazetteers, 1970). Brahmin population has diversified occupational base also with interest in agriculture. The Banias are not numerically strong in this district, but they constitute an important influential section of the population. The commercial interests in the district are controlled by the Banias. The scheduled castes account for over 10% of the population. The SCs are involved in wage labour, sand extraction and transportation. Among the SCs, the numerous group is Chamars whose traditional occupation was working in leather, were found to be agriculturalists also. Earlier on, before Independence the Darbars or Rajputs had allegiance to the Holkar principality and used to collect levy for them. The Pattedar tenant had a cultivating right on the land as long as they paid the revenue. The Pattedar status was ordinarily conferred on persons in whose favour The Government created a tenancy and practically all tenants in Khalsa (State managed) villages were declared as Pattedars. A Pattedari tenant was entitled to have his rent revenue assessed under the order of the Govt. and once this was done, it could not be enhanced until the end of the settlement period. However, in the late 1960 's, under the new land related act, most of these lands were transferred to the Patidars who were actually cultivating these lands as shareholders. Hence, the feudal, mal gujari pattern in land owning was successfully broken.

The catchment area of Maheshwar dam offers a wide range of economic activities to its inhabitants, irrespective of their socio-economic status. Given the fertility of the soil and the presence of the perennial waters of the Narmada it is not surprising that agriculture and the river itself should be the mainstay of the economy. A range of occupations both farm and non-farm centre around a well established and productive riverian agricultural economy. Varying proportion of households belonging to different caste groups own land in the submerging villages. Among the Gujjars and Rajputs, the proportion of households owning lands is high. The Patidars are a large community who own and cultivate land, belonging to the Kulmi / Kurmi caste. The landlessness in the area is around 30 per cent. A few individuals own over 30 acres, while the average landholding among those with land is around 2.6 acres. There is variation in proportion of the households landless among the project affected villages. Similarly, the average amount of landholding among the land owners also show variation. Discussions with the people show that since the option of irrigating lands became possible, some level of land consolidation has started taking place in the area. The incidence of joint families with the option of cultivating lands together has also increased. This makes sense for the farmers. However, this practice may go against the farmers in the context of land acquisition, if the lands are still owned by the head and not by all those with legal entitlement.

The economic activities in the area vary not only in their nature but between caste groups also, with some caste groups like the Kahars and Kewats specialising in certain river based activities and with the Dalits accounting for most of the agricultural labour. Caste being the organising principle of the area it is readily apparent that it is influential in the prescription of economic activities of the various groups. To assume from this that peripheral and near-peripheral groups like the Dalits and the Kahars and Kewats are mere victims of the system would be an oversimplification. In spite of the limits and constraints imposed on these groups in particular by a political economy based on caste there is considerable extent of occupational diversification present within the economic space that each group occupies. This diversity ranges from agriculture to various kinds of agricultural labour to cattle grazing, fishing, sand extraction, river bed cultivation to the sale and manufacture of boats etc.

**Agriculture :** In the early 1980s most land owners in the area extended irrigation to almost all their lands through lifting water from Narmada. This is in addition to irrigation from big-wells existing earlier. This private initiative has transformed cultivation potential of the lands. To the government all lands irrigated enabled through pipelines from Narmada may not be considered as irrigated. This may have serious implication while assessing value of the lands at the acquisition stage.

The fertile black soil and the availability of water enables three harvests a season. As a result, the farmers cultivate a variety of cash crops as well as food crops. Table 1 shows the main crops cultivated in the region as well as their yield, total income from them, expenditure incurred on them and net profit obtained per acre of each crop cultivated. This includes irrigated and unirrigated areas. Those farmers with assured irrigation have been able to accumulate wealth invested in acquiring lands, tractors, trucks, business and commerce. This class has also gained stakes in politics and government.

**Agricultural labour :** The fact that two to three harvests are taken from much of the cultivable lands essentially means that the fields are capable of providing work for agricultural labourers for major part of the year. The range of crops that are taken also mean that there are variations in the nature of the labour across the seasons. The differences in the nature of the work also imply corresponding differences in wage rates as well as in the nature of the contract between the labourer and the land owner.

Table 1

	YIELD PER ACRE (in quintals)	INCOME PER ACRE	EXPENSE PER acre	PROFIT PER ACRE
WHEAT	16.84	9194	2396	6798
COTTON	8.02	12866	4406	8460
CHILLY	10.35	21848	5846	16002
JOWAR	8.02	3939	755	3190
MAIZE	6.83	3285	542	2744
TUVAR	2.13	4334	648	3686
SOYABEAN	9.77	9373	1504	7875
SUGARCANE	27.50	29967	5090	24877
GROUNDNUT	3.52	3993	829	3163
MOONG	2.13	3093	400	2693
TINDA	18.36	16820	2727	14093
BHINDI	51.00	44133	1667	48133

Source : Based on information collected from over 300 households by the villagers themselves and 150 households covered by TISS survey.

It was found that the amount of work available within the village for the labourers is directly proportional to the amount of irrigated lands held by the households in the village. Often, farmers with large land holding had the capacity to employ a large number of workers in the village. In bigger villages like Maradana where landholding is large, work is available within the village for most part of the year. However, in smaller villages where land holding is dispersed with lesser proportion of irrigated lands, the quantum of labour available is lesser. This meant that the labourers of that village sought work in other villages in addition to work available in the village. The maximum work available in the non-season can be as less as 15 days per month. Another aspect of having small landholdings is that the family members owning the land themselves work on the fields, which avoids the need of employing outside labour. In several villages, land concentration has taken place with large land owners controlling large proportion of wage labour seeking population. Farming has assumed an organised structure with identified labourers gaining assured employment for most parts of the year. This is one reason for declining out-migration of workers from large villages. Discussions with all sections of the population revealed that migration from the villages to other areas has declined since mid-1980s. They attribute this to increase in irrigation and intensification of cultivation. It seems that people have made substantial investments to make cultivation a viable venture resulting in a number of benefits to the landed and landless.

Table 2.

Men		Women	
Activity	Wage rate	Activity	Wage rate
Ploughing	Rs. 30 / day	Sowing	Rs. 20 / day
Spraying insecticides	Rs. 40 / day	Weeding	Rs. 20 / day
Sowing	Rs. 20 / day	Cotton picking	Rs. 1 / kg - Rs. 50 / day
Weeding	Rs. 20 / day	Chilly plucking	Rs. 10 / bag - Rs. 40 / day
Watering	Rs. 20 / day	Wheat cutting	2 kg wheat / day
Sugarcane cutting	Rs. 50 / day		

It was also found that the labourers have a tendency of working for the same landlord. The incidence of attached labour is high in the villages covered in the study. For example, landlords give a labourer a lump sum to work on his land for the whole year; these wages can

range between Rs.8000 - Rs.12,000 per year. The wage rates for similar work has shown considerable fluctuation across villages. There are wage differences based on gender in this area too. The average wages for men range from Rs. 25 to Rs. 30 in addition to one meal a day, while the average wages for women are Rs. 20 a day. Table 2 shows the wage rate for each activity.

For cotton and chilly picking the women manage to earn upto Rs. 50 a day as they get paid according to the amount they pick, the rate being Rs. 1 per kilo of cotton picked and Rs. 15 for one bag of chilly. Sugarcane cutting also pays upto Rs. 50 a day to the men. Harvest months of the common crops grown in the region reveal that employment is available throughout the year for both, the men and the women. Dalits and other intermediate castes like Mahals, dhobis, etc., are mainly employed for these operations.

**Sand extraction :** Sand is deposited along the banks of the river in the course of its flow. This sand is a valuable material for construction purposes and is mined by the local population, particularly Dalits and Kahars. In a few villages Kewats and Muslims are also involved in sand extraction work. The sand mines are spread over a stretch of 12 km along this area of the Narmada. Sand mining stretch exist in all the villages and the stretches are divided into blocks which are then handed over to committees made of about 25 people each. The committees are constituted by the landless and relatively poorer sections of the population. The sand mining group members may belong to different villages. The sizes of the blocks range from 15 to 25 acres. Labour in the sand quarry pays between Rs. 100 to Rs. 250 per day. The sand extraction work takes place in two shifts. The labourers work in teams, usually a group of 3 to 10, for loading the trucks. The payment made for filling one truck is Rs. 400 which is then distributed among the team members equally. The team loads an average of about 5 trucks each day. The contractors buying the sand from sand mining group make a large profit. One truck load of sand is sold in the Indore market for Rs. 3000. The earnings of the contractor, who hires the trucks that deliver the sand to the market are large compared to what is paid to the workers.

The net income earned by an average sand extraction worker last year (1997) was in the range of Rs 30,000 to Rs 33,000. The ever increasing construction work in Indore city and other towns in the area has increased the demand for sand. In the last few years sand extraction work has been intensified with several worker cooperatives have come up to meet the demand for sand. Sand extraction is an organised business without any benefits that would govern employment in the organised sector.

**Fishing :** Fishing has always been done traditionally by the Kahars. Some of the common fish available in the area are bod, dok, katara, nalan, rua, carp and gedhara. The fishermen form a partnership of two and catch the fish. The boat may belong to one of the partners or both. On an average, they catch 4 kilos a day, earning Rs. 160 ( Rs. 40 per kilo ). In the monsoon, they can catch upto 6 kilos, earning Rs. 240 in a day. The amount of fish obtained and money earned varied from day to day. The fish is sold to distributors who come to the villages and then sell the produce in the markets.

Fishing is a viable occupation for several families in each village. The demand for fish in the area has increased with increase in circulation of money fueled by economic growth resulting from development in agriculture, sand extraction, commerce and business. The overall level of money earned by the people engaged in fishing seem to have increased. The Kahars believe that fishing is a dependable source of livelihood and their position has improved over a period of time. They view their right to fish in Narmada as inalienable. They are concerned that Maheswar project will take away their rights.

**Riverbed cultivation :** Substantial amount of riverbed lands become available (through draw down process) for a few months for cultivation. Though people from most castes are engaged in cultivation of the riverbed, the Kahars and the Kewats are mostly involved. The riverbed is cultivated by the Kahars and the Kewats for watermelons, muskmelons, cucumber, gilki, bitter

gourd and rice. The land is taken on lease by one of the members of either community in his or her name and then distributed among the houses of both the communities according to the amount of land they have traditionally been cultivating. Table 3 gives an idea of the yield, income, expenditure and profit per acre of each crop cultivated on the riverbed in one of the sample villages, Bahegaon. For the households involved in riverbank cultivation, the earnings are high and assured. This source adds to the income of several families in a village, often accounting to 10 to 15% of the households. For such households, the riverbank cultivation is an important source of livelihood contributing to 30 to 40% of the total income. Table 3 provides the details :

Table 3. Income from Riverbank Cultivation . Bahegoan village

Crop	Average yield (in quintals)	Average Income (in Rs.)	Average expenditure(in Rs.)	Average Net Income (in Rs.)
Muskmelon	36.7	19,687	4750	14,937
Watermelon	58.2	28,000	5517	22,482
Cucumber	17.2	17,032	2774	14,258
Gilki	28.8	10,222	2888	7,333

**Driftwood collection and sale :** Driftwood is collected from the river and used as fuelwood and sold by the Kahars and the Kewats for construction of houses and boats. This is done in the monsoon for two months. As in the case of fishing, the men form a partnership of two. The boat may belong to one of the partners or both. On one boat, 40 to 50 quintals of wood can be collected. The wood is sold at the rate of Rs. 150 / quintal.

**Sale of Boat and transportation :** Boats are also constructed and sold as a source of income. This has traditionally been the job of the Kahars again. The driftwood collected by the Kahars and the Kewats is used for this purpose. Wood is also bought from the forest depots. The cost involved in the construction of one boat amounts to Rs. 20,000. The boats are sold at the rate of Rs. 30,000 to Rs. 35,000.

The Kewats, also known as Nawdas, ferry people and market goods across the river. They charge Rs. 3 per person and additional charges for any goods that may be transported. This is a permanent source of income for the Kahars.

**Cattle grazing :** The economically and socially dominant castes are the ones that mostly own cattle. They employ others to take their cattle for grazing. A person taking the cattle for grazing earns Rs. 5000 to Rs. 6000 per year or 50 – 60 per day. Children are also employed for this job.

#### Kahars in the project area : Sources of livelihood

Kahars are fisher people dependent on river for at least part of the livelihood. In Jalud, the Kahars normally owned boat individually and did not have any partners. Their primary occupation is fishing which was done throughout the year. The quantity of catch in a day is upto 5 kilograms and the types of fishes include singad, Boads Nalan, Doke, Padon, Roi, Gegara, Katala (Local names), Common Carp etc. The catch is sold in the Mandaleshwar market at Rs. 50 per kgs. The daily income from fishing alone is between Rs. 160 to Rs. 250 every day. The yearly income from fishing range between Rs.50000 to 57600.

Since fishing is done on a small scale the equipment used is also simple. One of the Kahars interviewed in Pathrad informed us that they knit nets as per requirement. It usually takes them an hour a day for an entire year to knit a new one. Therefore, the nets in use are checked and repaired regularly. A net lasts them for at least ten years.

Other equipment and tools used are the Fasala bakar, Todi fasala, Mahajal, Toda, Tangdi.

Besides fishing the Kahars also cultivate on the banks of the river during the months when the water level in the river reduces, exposing the sediment. This soil is very fertile and most suited to variety of crops. The government issues licenses both temporary and permanent on payment of some monies to the families who are socially or economically weak. The crops grown in this soil include Melons both Muskmelon and Watermelon, Gilki (a kind of marrow), Bottle Gourd, Cucumbers (this variety grows particularly well), Karela (bitter gourd), Tensi, Amadi (leafy vegetable) and rice. Net income in the last year was Rs. 33100. Due to the erection of the Bargi dam this type of cultivation has been affected. This year due to the excess water released by the dam the entire harvest was water logged leading to losses of Rs. 20000.

Another source of livelihood is sand extraction which involves collecting sand which has been deposited on the banks of the river and filling it into trucks. This soil is in great demand for construction activities in the nearby towns. Sometimes the sand has to be collected, by boats from the middle of the river where a sand bank has been formed and accumulated on the banks. Sand extraction work is possible for two and four months. Three tonnes of sand is filled into one truck each day for which they are paid Rs.300. As the work of filling up sands is done in a team, the earnings of each person per day comes to around Rs 100 to 150 per day. This work is done through the day and night without a break in several shifts. In a day, an average of 100 trucks are loaded with sand each day.

The Kahars also catch driftwood which floats down on the river in the monsoon and sell it for additional income.

Since the Kahars have diversified their source of livelihood, their condition has improved in the last decade. Most of the Kahars own livestock and therefore their diet has a variety in terms of dairy products, meat, grains, pulses, fruits and vegetables. On the whole the caste groups has benefited due to the diversity of occupations.

*Table 1 in Annexure 2* provides percentage distribution of income by sources for most of the caste groups represented in the submerging area. The table also provides per capita annual income and per capita monthly income. Most caste groups have per capita monthly income far in excess of poverty line cut - off income level. The households belonging Kanude and Pal caste groups seem to have very low income.

For the submerging area as a whole, the proportion of households with per capita income below the poverty line is low - about 18% to 24%. A detailed analysis is being done and the final report will have percentage of households with poor income for each caste group. However, as revealed by sources of income, the level of poverty in submerging villages is very low. This point will have to be kept in mind in devising R&R policy.

#### Conclusion :

1. Availability of fertile land with irrigation has increased the productivity and cultivation is possible throughout the year. Though all caste groups have households owning land, large proportion of Rajputs and Gujjars own land.
2. Intensive irrigated cultivation has enhanced work opportunities for agricultural labourers.
3. The Narmada river provides other income earning opportunities, Riverbed cultivating sand extraction, fishing and driftwood collection activities have enhanced earning opportunities for the vulnerable groups.

4. Existence of prosperous farming community and high level of productivity of land have opened up opportunities in commerce and business. Many families own shops and establishments.
5. The diversity of occupations available and opportunities for wage labour has positive impact on the level of income of households. The level of poverty is very low.

*For the families in the area, there are a variety of sources providing livelihood. Most families have got multiplicity of sources to provide income. Each of them complimentary to other. It is up to the people to intensify involvement in one source of livelihood when other(s) fail. However, most of them center around Narmada. Cultivation is being made viable only with lift irrigation from Narmada, and this has in turn enhanced opportunities for agricultural wage labour. Similarly, sand extraction, river bank cultivation, fishing, drift wood collection, sale of boats, and transportation of people across the river are all possible because of the river. Dalits, Kahars, Kevats and other caste groups, and Muslims are better placed in this regions because of the alternative sources of livelihoods available to them. Most of them, other than sand extraction, are sustainable. One proof for the better economic situation can be had from the aspect that labour related out-migration of men have declined considerably since mid-1980s. There is employment for those dependent on wage labour.*

### **3. RESETTLEMENT AND REHABILITATION : WHO IS RESPONSIBLE?**

The MHH Project has changed hands thrice since its inception. The implementation of the project was with the Narmada Valley Development Authority (NVDA) upto 1988. However, due to its status of 'a power project' it was handed over to the Madhya Pradesh Electricity Board (MPEB) in 1988. In 1992, the government decided that it should be allotted to the private sector. An M.O.U. was signed by the government in July 1993. As per agreement dated 25-1-96, all the land required for the project and the structures erected on the land were turned over to the S.Kumar's. The company soon after started construction activities.

*The agreement for R & R was executed with MPEB in 1997 by the S. Kumar's. Till date the people of the Nimad region who will be displaced by the project have not been informed nor notified about their fate by any of the parties (S. Kumar's / MPEB / revenue department acquiring lands / district administration). As per the conditional permission given by the Ministry of Environment and Forests (MOEF), the R & R work for the MHH project was to have been completed by the authorities in 1997-1998. But surprisingly it has not even commenced as yet.*

The MHP at present, is a project which is owned by a *private company executing the project in collaboration with German partners*. Legally, the company has no responsibility for R & R as it is the responsibility of the government, specifically, MPEB. The company comes into the picture as it can not proceed with the construction work as long as people continue to stay in the villages.

In the initial phase after the S. Kumar's took control, some representatives visited the Jalud village, the village nearest the damsite and informed them that they would be resettled in a model village as a demonstration to the others that the 'company' would resettle and rehabilitate all the affected persons. Subsequently they were informed that they would be given house plots and assistance from Indira Awas Yojna (which is a regular government programme not a provision under R&R policy) and would have to construct their own houses. Later the people were informed that the MPEB was responsible for the R and R. The date for submergence given was 1999. *Nothing has happened upto now.*

During the pre construction stage in 1987, when land was being acquired for setting up guest houses, offices, sheds etc., the State machinery was involved in forcibly evicting the



people from their land. Labourers were beaten up, pumps in the fields were broken and sealed with cement and concrete and people were barred from entering their land for harvesting or sowing by the law enforcement agencies.

The involvement of the S. Kumar's has not changed the situation. The representatives of the project have made selective offers to selective individuals and asked them to vacate the land. Some people have been employed on an ad-hoc basis by them in the company from the affected areas. But the bulk of the labourers come from another state.

The entire damsite and the road leading into the dam has been blocked. No person without authorisation can enter the area. Police checkpoints exist at all roads leading to the dam. Contingents of armed police persons guard the site. Two fences of barbed wires, one of three wires and the other of seven wires have been erected to protect the site from 'intruders'. The fences have been erected on the land belonging to the Jalud village viz. over which they have nistar rights and also private land of the villagers. These are also guarded by the police. The Nistar rights of the Jalud villagers have been violated due to the construction of barbed wire fences, which prevent access to the agricultural fields of some villagers. The villagers are not allowed to enter their fields by the Police who are camped at the site. The cattle is unable to graze in the 'charnoi', and are often injured due to the barbed wires. Due to the construction of the coffer dam and the powerhouse, stagnant and polluted water has collected in certain places. Livestock belonging to the harijans have died due to drinking this water. In one family 19 goats have died after drinking the water. There is no access to the motor pumps located on the banks of the Narmada river if the crop is not watered in time, it results in loss of the entire crop. The cremation grounds which is shared by three villages have been fenced off by the authorities. Land which was used by villagers for answering nature's call has also been fenced off. This causes immense problems to the people specially to the harijan women who do not have any place which could be used for the purpose.

Jalud has been severely affected by the construction activities since it is in close proximity to the dam. Due to blasting at the damsite a number of houses have been damaged severely and walls have developed cracks and the structural joints (wooden) have been fractured. The entire structure (house) trembles making it unsafe for the people inside the house. A canal has been built near the village due to which floods occur during the rainy season and isolates the whole village

#### 4. THE REHABILITATION POLICY FOR MHP DISPLACED PEOPLE

The Government of Madhya Pradesh (GoMP) has adopted a policy meant for rehabilitation of displaced persons affected by the projects on the Narmada in M.P.

<b>Land Allotment Category</b>	<b>Entitlement</b>
Landed Oustees	Min. 2 ha. and max. of 8 ha. If unirrigated, double than those for irrigated land.
Encroacher	If possessed land upto 1ha.; to receive min. of 1ha. and max. of 2ha. of irrigated land. All lands occupied upto 13 - 4 - 1987 are eligible for acquisition and land provision.
Landless	No allotments of agri. land. Agricultural labourers & SC / ST will get Rs 29000 each for productive assets, other landless to receive Rs 19500;
Major son of landed	Not eligible to receive land
Major sons of encroachers	Not eligible to receive land
Major son of landless	Not eligible to receive land
Major daughter of landed, encroachers and landless :	Not eligible to receive land
<b><u>Cost of land</u></b>	50% of compensation money retained as initial instalment towards cost of land; Those not wanting land to be bought with Government's assistance can receive full compensation amount in 1 instalment.
<b><u>Housing (Rural area)</u></b>	502 sq. m. plot size (60' x 90'), free of cost to each D.F including major sons (of landed, encroachers and landless)
<b><u>Allotment of land for civic amenities</u></b>	Same as NWDT
<b><u>Compensation</u></b>	
For land	Price of similar land in adjacent command areas at the time of land acquisition is taken as the basis;
For buildings, other structures	Condition of house and materials used; permission to take away salvaged material to relocation site.
<b><u>Rehabilitation grant</u></b>	Rs. 6400 / family (for 1 year), landless labourers & SC/ST small / marginal farmers, Rs. 3200 for others.
<b><u>Transportation grant</u></b>	for all, family members, household articles, agri produce, etc. or relocation grant of Rs. 500 per family.
<b><u>Grant in aid</u></b>	suppl. income for landless and SC/ST for 3 yrs after Disp. Rs. 4800, 3200, 1600, for 1st, 2nd, 3rd years respectively.

### Other provisions

- Difference will be paid between compensation and cost of allotted land for D. F. of landless and SC/ST (in cases where cost of land is higher than the compensation money received)
- Priority in employment in government departments.
- Age relaxation of 2 yrs, in Class III posts of Govt. service.
- Sum of Rs. 3200 for landless families (independent employment).
- Assist. of Rs.1000 per ha., per year for 2 yrs, if interest free loans are not available.
- Outstanding loans will be transferred to branches in new resettlement sites.

### RESETTLEMENT PROVISIONS - PRIME CONCERNS

- Family includes persons dependent on head of family e.g. widowed mother, unmarried or widowed sister, old father, unmarried or widowed father, daughters and sons below 18 years of age. By doing so, the government has left out a number of people not eligible for rehabilitation. The women are completely left out of compensation and rehabilitation provisions.
- Tenants are not entitled for compensation and land provision. They are not shown to have rights to the land providing sustenance to them.
- River bed cultivation is a major source of livelihood for several families belonging to vulnerable sections of the society such as Kahars and Kevats. This type of cultivation is possible for a few months and provides a valuable source of income to the people. Such cultivators are not entitled to compensation and land provision though some of these families have been engaged in this form of cultivation for a few generations and own leases on the land.
- Assessment of price of land acquired is based on the price of land located in adjacent areas. The price of land in adjacent areas can not be equated to fertile valley lands and those located in lower slopes. The submerging lands are highly productive and are under extensive cultivation. Thus, productivity, type of soil and other related factors should be considered in fixing the price of acquired lands.
- The farmers have invested considerable amount of money to create lift irrigation. However, people felt that such investments have not been taken into consideration while fixing value of lands acquired. This has to be clarified and if true, such investments should be considered.
- Rehabilitation grant has to be increased as the families require some time before they achieve stability in the new resettlement sites. Transportation grants should be large enough to enable a family to shift as and when they find it convenient.
- Mandatory clause should be incorporated that the Govt. would provide employment to one person from each family for at least two generations, specially in the case of the landless, at the site.
- Guaranteed employment in the Class III posts of Govt. service, particularly to vulnerable groups.
- Assistance should be more as investments in agriculture are high, and D.F may not be in a position to make heavy investments in the initial periods.

Loans taken previously on agriculture, fixed assets such as repair of house, construction of shed, digging of wells, pipelines etc. should be waived or the bulk of money from the grants and compensation will be spent on repayment of loans. Arrangements to extend fresh loans should be made and subsidies for certain activities such as agriculture and investments in fixed assets should be provided.

## **5. EXPERIENCE OF THE PROCESS OF LAND ACQUISITION AND COMPENSATION**

The GoMP started acquiring land for the purposes of the construction of the dam in 1987 onwards. Initially land was acquired for the purpose of pre construction activities viz. access road to the damsite, colonies for workers, guest houses, offices, sheds for housing material and equipment etc.

The incidents which occurred subsequently in the process of acquiring this land have two aspects, one the law / policy and the second, the process, the manner in which the entire procedure was carried out. Firstly, the people were not informed about the construction of the dam and of the provisions under the policy which specified the entitlements. This act of the GoMP is a violation of the fundamental rights of the people. It is against the very principle of a democratic state. The power which has been invested in the State by the people has been grossly misused. In India the right to vote is given to the each individual and not a company, therefore there is a need to examine, 'development' as promoted by the GoMP, which is against the wishes of the voters in that region. The citizens have the rights over and above that of any private company which is involved in profit making and moreover does not have any rights that a citizen has viz. the right to vote. This very aspect to be questioned. Does any Govt. have the legal and moral authority to permit any activity in the name of development especially when the vast majority of the people are against it.

Secondly the entire process of procuring land from the people was done in a manner not appropriate and totally unwarranted in a democracy. Only the people possessing land near the damsite were issued notices under Section 4 of the Land Acquisition Act by the State machinery. Most of the families were from Chota Khargone, Some from Mandleshwar and the others from Jalud village. Representation was made by the people to the concerned authorities to voice their grievances, which were noted, but not acted upon. One by one all the people were coerced by threat and violence to hand the necessary permission to the State. Most of the people had made investments in the agricultural lands during the planting season, by taking loans which were to be repaid after harvesting. Heavy losses were incurred by the farmers and the money had to be repaid from the compensation amount.

Compensation paid was not calculated as per the market rate prevalent. The productivity of the land and the yearly income obtained through the sale of agricultural produce was not considered while setting the compensation. Therefore, the amount paid to the families was much lesser than the prevailing rates for their lands thereby causing them to suffer a loss.

Another factor not considered was that the family consisted of three generations living together. The needs of the people were met by the family. The monetary compensation for land was divided equally between all members, thus each person entitled to the share in the family did not have enough money to buy land. In the case of one family from Jalud, a major part of the land was taken in 1987. The family still retains a part of the land, which is insufficient to support all members and the amount paid was too meagre for them to buy lands at the prevailing rates.

Till the time of writing the report, none of the villages had been informed of the MHH Project. The people have a right to information, and had to be informed before construction activity on the land began and before the acquisition of the land.

### *Case study 1*

M. Palidar from Jalud is one of the people whose lands were taken forcibly for the purposes of the construction. His father owned around 18 acres of land of which 12 acres were taken by the state on 4<sup>th</sup> April 1988.

The fields were being readied to be cultivated, loans had been taken for buying manure, pesticides, seeds, labour etc.. They used to grow cotton, jowar, wheat etc. Their yearly income from agriculture after expenditure was Rs 2 lakhs/compensation. The labourer who was working in their field was prevented from entering the field and beaten by the police before being driven away from the field. The pipelines were broken and cement filled in the joints.

The SDM treasury has the power to sign and release money. An account was opened in their names and the money was deposited in that account. Compensation paid to them was @ of Rs 7250 per acre for 12 acres totalling Rs 87000. The money was used to repay loans taken for agriculture, and on the education of the brothers. The money received was used within three years of payment. The family sold most of their cattle as they could not provide fodder (agricultural residues).

At present, the family owns 6 acres of land which is not adequate to support the entire family. Three of the brothers are in service, two have been employed at dam site. They possess a jeep which has been given on hire to the damsite. The land taken from them has only been used for storing construction material and as a garage for parking vehicles.

### *Case study 2*

Dashratbhai and his family live in Mandleshwar. They owned about 16 acres of fully irrigated land some 1.5 km away from Mandleshwar. One night some persons came to their house with some documents. They informed the family that the court date was in the near future and asked them to sign on the court document. Since there was a case pending in the court, they just signed the documents without actually reading it.

The family unknowingly signed away their rights to their lands. The next day, which was a Sunday, they observed policemen in their field, who drove away the workers (agricultural-labourers). The pipeline (length 2700 ft) which irrigated the fields from the river was partially fractured and cement and concrete were used to disable it completely. They suffered an enormous loss since they had prepared the fields for sowing. The revenue alone from that land was 1 lakh to 1.75 lakhs (gross) per year.

The family lost the case which was pending in the district court and due to lack of money were unable to proceed further. Payment of about Rs 12,000 was made as fees for the advocate. The compensation paid was Rs. 1,01,000 for 16 acres which did not include the cost of pipeline or investment done in the fields. The demand of the family being that the authorities pay them the actual market rate prevalent at that time which was Rs 40,000 per acre. The Govt. estimates were Rs. 10,000 per acre. The money was used to repairing the house, the marriage of a daughter and for domestic consumption. He was not employed nor was land given to him in exchange as the land is to be used for periphery services such as pre dam construction activities for which no rehabilitation benefits are given. There are about 10 people who are dependent on that land. At present he is doing more than one job to support the family such as agricultural wage labour and selling milk.

The land is not actually a part of dam site. Three helipads have been built on the 16 acres and a dispensary has been started for workers who are working at the dam site.

*Some of the basic points emerging from the analysis of MHP from peoples point of view are:*

1. People who may be affected by land acquisition and loss of livelihoods know too little or nothing about the project or resettlement and rehabilitation benefits that may be available to them. There is complete secrecy about the project, and people are greatly distressed about the lack of information from the government and project authorities;
2. People have right over information on a project that is to complete redefine their life situation for the worse. It is completely unacceptable as far as affected people are concerned;
3. Since the project has changed hands from government to a private agency, people are at a loss as to what will happen to them. People feel that the S. Kumar's are free to go ahead and make the dam irrespective of whether people are resettled or not. In fact, the events over past year has clearly shown that the S. Kumar's are going ahead with the construction work without people being properly resettled.

## **6.1 PROCESS OF LAND ACQUISITION - LACK OF CLARITY AND DIRECTION JALUD A VILLAGE UNDER SIEGE**

Jalud is the first village to be submerged by the Maheshwar Project and is also the location of the Maheshwar dam site. Situated in the Maheshwar tehsil of Khargone District of Madhya Pradesh, on the banks of the river Narmada, the rich, deep fertile black cotton soils of Jalud as well as its other resources have supported a multitude of castes, communities and occupational groups : Rajputs, Dalits, Kahars, Bharud, Gujjars and others.

From 1985 onwards, land acquisition work for the project began. In 1985, land was acquired for the first time. Then in 1988, the lands of Ladki w/o Ramaji, Bhiluram Pathod and Shambu Shravan Harijan were acquired. When they refused to give their lands, the administration poured cement and concrete in their running pipelines and the revenue officials and police entered their fields and put up boards announcing transfer of land to the project. After this, lands of six more families were acquired. The Police and the administration entered the lands of these six farmers at night and dug up the fields. The standing crops were destroyed and the lands seized under threats. Most of these farmers were rendered landless and are forced into wage labour for survival. The farmers were rendered helpless in their own village. Those who lost lands have not yet received any land as a rehabilitation provision. In 1985, 1988, 1992, and 1994, land was acquired and cash compensation was paid. Though those losing land are supposed to receive land according to the M.P. rehabilitation policy this has not happened.

Two farmers, namely, Narain Phattu and Phattu Shravan on whose lands the present construction of the power pit and protection wall is taking place have not received compensation till date. They were cultivating old encroachments, lands for which they hold fine receipts. Yet, they have not received compensation, let alone land for land.

Jalud village is suffering other serious consequences. Due to blasting at the dam-site in 1997-1998 over 40 houses in village Jalud have developed cracks and fissures in the walls. Some of the people whose houses have been damaged are : Anookh Singh, Shiva Singh, Ramesh Sengar, Kishor Singh, Bhairo Singh, Murlu Singh, Umrav Singh, Dhan Singh, Gopal Singh, Bharat Singh, Ram Singh, Balwant Singh, Shankar Singh, Narendra Singh, Badrilal Mnathu, Chelram Gujjar, Gendalal Kutria, Rangnath Dashrath, Manju Mukund, Ratan Gaja, Phatu Makun, Dwarkia Premchand, Gaja, Deepa Gopia, Dayaram Punia, Shivram Rama, Nathu Rama, Champa Balia, Ghanshyam Gendalal, Ramesh Gendalal among others. These damages are not assessed or acknowledged by the authorities managing the construction process. The affected families have not received any compensation to repair the damaged houses.

The police camp at Jalud has cut off free access to the river for the village inhabitants. Even the access to the village common lands has been illegally fenced off by the project. As a result, bathing, washing clothes, watering of cattle at the Narmada is no longer possible. The dalit women cannot go for toilet purposes there. Nor can the people go to their own burning ghats (cremation grounds). Access to the Ashram located on the banks of the Narmada has also been cut off.

The private lands of Jalud have been fenced-in illegally by the project. As a result, many farmers cannot go to their fields. Vegetables grown for sale by Umrav Singh Dairav Singh on 2 acres of land became spoilt. Ramesh Sengar lost a crop of vegetables worth Rs. 5,000 to Rs. 10,000. Bhavani Singh Devi Singh lost about 3 acres of vegetables, worth about Rs. 25,000 to Rs. 30,000 because of their inability to reach the fields in April 1998.

Besides, the police do not allow the farmers to cultivate their river bed draw-down lands. Ramseh Sengar grew vegetables there. Every day 80 kgs. Ladies finger were spoilt in the field, but the police did not allow him to go there and harvest it.

The police have also encroached upon Ashok Babu's field and built their camp there. Apart from this, the administration and police have started intimidating farmers who draw water from the Narmada through the pipelines. About 2 months ago, they broke the pipeline of Pyar Singh Sitaram. Then they broke Ratan Agarwal's 300 feet pipeline with a dumper. On 16<sup>th</sup> May 1998, when Badrilal Nathu, Ratan Agarwal and the farmers to whom they rent water, Kailash Devi Singh and Sumer Singh Dashrath who went to operate their pumps were stopped and told they would be arrested if they came again.

Three sand quarries of Jalud were closed by the administration unilaterally in April 1998. These quarries are run by co-operatives and the government cannot shut them down for reasons extraneous to the running of these co-operatives. Because of this closure, 60-70 workers of Jalud and Lepa suffered.

Two big embankments have been constructed across Khar, which drains Jalud. This is part of the controversial protection wall being constructed by the project. This was constructed in 1997 and the rest of it is being constructed now, will join it. In the monsoon of 1997, though the rains were sparse, instead of draining away through the village into the Narmada, water was stopped by the embankments and entered the village. As a result, houses of Dasrath Gendalal and Bokhar Premchand filled with water and Sheru Bohkar's entire house was submerged.

It is clear now that when the entire "protection wall" will be constructed, in the event of heavy rains, village may get filled with water and 'submerge' in 1998 itself. This is extremely serious and the legal liability of the submergence will lie with the Project Owners and the Government. To make matters worse, an artificial outlet has been provided by the S.Kumars by making a straight gutter, cutting through the undulating riverside hills that protect the village from the Narmada. This may add to water collection within the village.

The people have demanded that all construction work on the "protection wall" be immediately stopped and old construction dismantled in order to save the lives and properties of the Jalud inhabitants from submergence.

## **6.2 SAMRAJ KI BEDI : SITE FOR RESETTLEMENT OF JALUD VILLAGERS**

In the last 13 years, the process of acquisition for the project has affected over 50 cultivators and their families in Jalud and adjoining villages of Choti Khargone and Mandaleshwar. Most of these families have lost land reduced to the status of landless labourers. In response to the mounting pressure against the Maheshwar Project, the Madhya Pradesh

Government and the S. Kumar's decided to follow the "land for land" policy of the State rehabilitation policy for large dams in the Narmada Valley. The administration then unilaterally decided to rehabilitate the inhabitants of the first submerging village, Jalud in Samraj ki Bedi. "Samraj ki Bedi" is a stony waste and a barren hillock on which proper cultivation is not possible.

The story of Samraj ki Bedi is truly distressing – both for the inhabitants of Samraj as well as Jalud. The lands of Jalud are rich, deep fertile, black cotton soil, irrigated by pipelines drawn from the Narmada and supporting 3 rotations of crops in a year. Given this, there is no way the naked barren hillock of Samraj would be acceptable to Jalud people.

The Jalud people have made their views about the Samraj lands known to Government through several petitions. They have refused to move to Samraj ki Bedi. The authorities have made attempts to rehabilitate Samraj ki Bedi lands by excavating the stony soil and pouring black silt from the nearby ponds of Sanghi and Mandaleshwar over it. All this will not lead to the creation of cultivable lands, because these soils will be washed away with the first or second monsoon.

#### ***Displacement of people dependent on Samraj ki Bedi land***

This hillock constitutes almost all the pasture land of village Samraj. Apart from this, it also supports small plots of titled and untitled cultivation of over 34 Dalit and tribal cultivators of the village. Also, there are stone and gravel quarries on this land in which labourers from 2 villages find employment.

The 34 Dalit and tribal families of Samraj which depend for their livelihoods on the cultivation of small lots on this hillock will be affected. The authorities have not consulted the Samraj people about acquisition of lands for rehabilitation of Jalud people. The lands of Samraj people were taken away without any prior information, explanation or compensation.

A majority of the Samraj families are losing more than 25 % of their lands. According to the rehabilitation policy the Madhya Pradesh Government, applicable to all Narmada Valley Projects.

- a) any family losing more than 25 % of its lands due to submergence or for any other purpose required for the Project is a Project affected person and is entitled for land for land.
- b) Titled and non – titled land holders will be treated at par

The lands from 34 families have been taken away without adhering to the principles of acquisition and rehabilitation. These families not having titles have also been affected. In April 1988, The Patwari took the police to Samraj, and took possession of the land using force.

The same process of taking over lands without following due process of notification and acquisition causing Dalit – Adivasi families to poverty in the Sangi and Mandaleshwar ponds has deprived the people of the opportunity to engage in draw-down cultivation. The black soils of these two large ponds are being taken away and poured on the stony waste of Samraj. The soil of Sangi pond is infertile and worm infested according to the local people, so its use for land "development" at Samraj is questionable. 250 families of 9 villages are dependent on draw-down cultivation in Mandaleshwar pond. These families of Sangi, Dhargaon, Dhapla, Nazarpur, Jalud, Mandaleshwar, Samraj and Tangia plot are dependent on this draw-down land, each family holding title of 1 acre of land each. However, these titles will be cancelled and silt from this lake will be poured onto the hillock of Samraj. Cause of this, these 250 families will become totally landless.

As the pasture lands of Samraj are being taken over for the rehabilitation site, the host village is losing capacity to retain cattle. A few households have begun selling cattle. It is



disturbing that the decision to hand over the village common lands was not taken in consultation with panchayat. Nor was any public meeting held for the purpose. The land levelling of Samraj being done by bulldozers has destroyed the field access roads of Samraj inhabitants as well as the 2 gravel quarries which provide employment to labour from 2 villages.

Thus the whole process is leading to landlessness of 34 families of Samraj, and another 250 families identified for rehabilitation from adjoining 8-9 villages who cultivate land in the Draw-down lands of Mandaleshwar tank, the closure of 2 stone and gravel quarries and the consequent loss of employment and the seizure of the village common lands of Samraj. On the other side, the inhabitants of Jalud have rejected this completely as a rehabilitation site. The land cannot be compensation for the lands lost to Maheswar dam. Above all, land available is not sufficient to provide land to all families eligible for lands.

Jalud is the first village to be submerged by the Maheshwar Project. Yet even for this demonstration rehabilitation, barren lands not suitable for cultivation is identified. The Jalud people are also determined that they would not like to resettle on a land which is lifeline for another group of people.

### 6.3 VITAL LACUNAE IN THE R&R POLICY

#### 1) Survey and Enumeration of Affected Area and People

The project documents do not make it clear what data constitutes the basis of the people being counted as project affected. According to the people no survey of the land, enumeration of the population and its socio-economic and demographic condition has been done in the recent years, let alone exclusively for the project. The last survey and land settlement was reported as having taken place in the 1970s. As such therefore the estimates of project affected people and the categories of land to be submerged are unreliable. This is particularly important since irrigation became widespread only in the past decade and data pertaining to this vital fact is under the circumstances most unreliable. The socio-economic condition of the people in the submerging areas has undergone significant improvement in the past 15 years. This has very important and far reaching consequences for the people who will be affected by the project.

#### 2) Land For Resettlement

A significant proportion of the area that the project will eventually submerge is fertile agricultural land yielding three crops a year. Moreover there is very high irrigation potential with a significant share being already irrigated. In lieu of this fertile and productive land the State proposes to give the project affected people government waste land. The result can only mean impoverishment as has resulted in the case of a large number of project affected people in the country and particularly in Madhya Pradesh. Recent studies have shown that in case of SSP in Gujarat, despite the land being selected with peoples' participation, at least one third of the people have found that agriculture is both unproductive and unsustainable in the lands given. The reason being the poor quality of the land needing high investments leading many families to the edge of complete bankruptcy. There is no reason to believe that the same fate will not be shared by those being displaced by the Maheswar project. As such the R&R policy in question contains no additional provisions to safeguard people against such an eventuality.

At the same time it is very important to examine the claim of the MP State Government regarding the availability of land for the execution of the R&R policy. It was not very long ago that the same State govt opposed the raising of the height of the SS on the grounds that there was no land available in MP to resettle those being displaced in the state. The State Govt it will be remembered submitted an affidavit to the Honourable Supreme Court stating the same unequivocally. It may be pertinent to ask of the Government from where it is going to find adequate land to resettle those being displaced by the Maheswar project.

Some of the fundamental principles governing resettlement and rehabilitation of people affected by the Sardar Sarovar Project must be applicable to MHP. They are:

1. Resettlement of people as a cohesive social unit, mostly village and hamlet as whole in one place;
2. Resettle people as a large unit flowing from principle 1 so as to enable provision of all civic amenities and provisions.

*The Maheswar project should adhere to these fundamental principles. In order to demonstrate that it follows these principles, the project must locate such lands with participation of the affected people in an area acceptable to them. All project work must be terminated until this happens.*

#### **Comments on Land Availability for Resettlement and Rehabilitation**

A careful examination of the claims made by the Government regarding the land available for the purpose of R&R of the project affected reveals a number of problems. These relate to the claims of private land (PL) as well as government land (GL) that have been shown as being available for R&R. A limited preliminary survey of some of the sites reveals that most of the holders of private land are not even aware of the R&R programme and/or are not willing to part with their land for the same. At the same time many of the sites of government land that has been shown to be available are either already in the submergence zone, being at lower levels and close to the river or are rocky, spread over hillocks and are uncultivable. Further there are many sites where the government lands have already been encroached and in many cases the encroachers even hold titles.

Sites where private landholders were not aware of R&R programme and/or not willing to part with their lands:

- Maheswar Tehsil: Bhasunda, Gogawa, Digar, Pathrad Khurd, Chirakhan, Pitamli
- Kasravad Tehsil: Nagawa, Bokawa, Khedi, Kakariya, Peelnagar, Toksar, Ali Bujurg

Sites where GL claimed to be available for R&R lies in the submergence zone and thus will not be available:

- Maheswar Tehsil: Sulgaon, Baiapura, Gogana, Digar, Lalpura, Pathrad, Bahegaon (submerges in monsoon), Pandyaghat, Pitamli, Sitowki, Bharpura, Khegaon, Gangat Khedi
- Barwah Tehsil: Semurla, Ramgarh, Katghada, Sustiya, Mardana, Toksar, Ali Bujurg
- Karvad Tehsil: Lepa, Lalpura, Teliyan (submerges in monsoon), Bhatiyani Bujurg

Sites where the land identified, PL or GL, is rocky, too hilly, prone to erosion, degraded and thus mostly unfit for cultivation:

- Maheswar Tehsil: Sulgaon, Bahegaon
- Barwah Tehsil: Semurla, Muralla (yellow soil), Ramgarh, Nagawa, Mardana

Sites where the GL identified has already been encroached, in most cases for as long as 15 to 20 years now and/or where encroachers have been titled:

- Maheswar Tehsil: Jalud, Bahegaon, Pitamli, Nimgul
- Kasravad tehsil: Sasabarud (all lands are titled)

See tables in Appendix 3

### 3) The Case of the Fisherfolk

As is clear from the report there are a very significant proportion of people for whom fishing is not only a means of making ends meet but is also a way of life most notably in the case of the Kahars and Kewats. It is not in the least clear as to how the project intends to compensate these people adequately, far from it the project does not even seem to recognise the infinite complexities and problematic involved in the issue of trying to compensate for loss of an entire way of life. It will not in the least be irrelevant to ask whether such a loss can be satisfactorily quantified and computed let alone made good. There are no provisions regarding the resettlement of these people in areas where they can continue fishing. The project is also silent on the issue of granting exclusive fishing rights to these people in the reservoir. Moreover there are no provisions regarding the possible retraining of these people to help equip themselves suitably for taking up new occupations.

### 4) Issues Facing the Landless

The landless people are integrated into the political economy of the village and they depend on the other groups in the village especially the landed cultivators to ensure an assured source of labour income. The wages paid are not consistent with the incomes earned by large farmers. In the current situation, the landlord - labourer relationship is problematic and require change. However, given the near full level of employment, the labourers are relatively closer to or above poverty line. The Maheswar project will destroy the livelihood opportunities available for them in the current situation, without creating any alternative. The promises made by the GoMP may not result in implementation. The way R&R work is progressing in Maheswar project, the landless agricultural labourers are heading towards economic disempowerment.

*The landless must be entitled to lands and other livelihood provisions as applicable to SSP affected people in Gujarat. It may otherwise be difficult for the landless people to establish in other place and develop a living standard which is an improvement to the situation now.*

### 5) Post-resettlement Issues

- The landed project affected are promised 'ready for agriculture' lands in the R&R policy. However, very little land has been shown to people which is ready for agriculture. Much of the lands stated to be available for distribution are waste lands. In case of Sardar Sarovar Project, upto one-third of the lands bought with 'peoples participation' remained uncultivable even a decade after the lands were given. Large amount of money, labour and time had to be spent by the people in order to clear the lands of weeds, jungle and stones etc. and make it fit for cultivation. There is no reason as to why the same fate should not befall those being displaced by the present project. In fact the situation would be far worse in case of Maheswar project.
- The same problems were also true in the case of the plots given for house construction. The amount of compensation given for construction has never been known to be sufficient to build a new house in the resettlement area. The considerable time lag between the issue of the compensation money and the actual displacement led to people having insufficient money at the time of construction due to rising material costs and other personal consumption pressures. This caused considerable hardships to people with many having to settle for poor housing amenities. The result would be that many people end up living in the open or in makeshift shelters with all their attendant problems. The project statement on R&R does not take cognisance of these potential problems and therefore it cannot be assumed that these problems will not be faced by those being displaced. Maheswar project does not provide any support to the displaced people to make a new house.

- At present the peoples rights to CPRs and the food, water, fuel, fodder and other essentials are well protected and established. However it is common experience including in the case of SSP that original settlers around the resettlement sites are unwilling to grant those rights to the resettled or if they do it is at a high price. This has led to great hardships for the people who have been resettled. The R&R statement is silent on these issues and also does not even consider the question of compensating the people for the loss of these rights. *It seems that most of the displaced people will be resettled in or forced to move to non-submerging parts of the village.* That is more people will be added in an area with enormously depleted resources due to submergence. Population increase in a resource depleted environment will lead to large scale out-migration and hardships to the people.

*Peoples right to resources will be completely compromised by the MHP under current R&R provisions. This has serious implications to the sustainable livelihoods of all affected people.*

## 7. CONCLUSIONS

1. For the families in the area, there are a variety of sources providing livelihood. Most families have got multiplicity of sources to provide income. Each of them complimentary to other. The dalits, Kahars, Kevaits and other caste groups have access to several sources of livelihoods such as agricultural wage labour, fishing, sand extraction, river bank cultivation, drift wood collection, involvement in boat transportation and others. In fact, fishing and sand extraction are steady income providing sources. It is up to the people to intensify involvement in any one or more sources of livelihood when other(s) fail. However, most of the livelihoods center around Narmada river. Cultivation is being made viable only with lift irrigation from Narmada, and this has in turn enhanced opportunities for agricultural wage labour. The land is subjected to intensive cultivation throughout the year. Similarly, sand extraction, river bank cultivation, fishing, drift wood collection, sale of boats, and transportation of people across the river are all possible because of the river. Dalits, Kahars, Kevats and other caste groups, and Muslims are better placed in this regions because of the alternative sources of livelihoods available to them. Most of them, other than sand extraction, are sustainable. One proof for the better economic situation can be had from the aspect that labour related out-migration of men have declined considerably since mid-1980s. There is employment for those dependent on wage labour. The overall living standard of all sections of the people is better.
2. The rehabilitation package offered by the Maheswar project is not comparable to that of the Gujarat package offered to people displaced by the Sardar Sarovar Project. The M.P. package does not provide land to landless and major sons of all categories of displaced people (land - owning, encroachers, and landless). The M.P. package is far inferior to that of the Gujarat package on all aspects - land provision, assistance to set-up self-employment initiatives, employment in government, and provision of civic amenities and basic services.
3. The Government of Madhya Pradesh has not demonstrated that it has land to provide even to those entitled to receive land even as per current R&R package. The GoMP has identified waste lands spread over Nimad region. However, it is common knowledge that all waste lands that could be reclaimed for cultivation are already occupied and under cultivation. By GoMP order all government lands encroached upto 2 October 1984 have been regularised. The waste lands that are not under cultivation can not be brought to cultivation. In addition, all such lands are common property of people. The GoMP can not take away such lands. In fact, close examination of lands identified to be available and suitable for cultivation has been proved to be wrong.
4. Even if waste lands are actually unoccupied, possible to reclaim for cultivation and available for distribution, it can be made available to only a few families in any place. That is people can not be resettled as viable social units. This would result in dispersal of families over a

large area thereby breaking their social network. For provision of civic amenities certain number of families should be resettled together in an area. Otherwise dispersal of families would make establishment of civic amenities unviable. The GoMP's document may say that it has got the desire and capacity to establish and provide civic amenities even if a small number of families are resettled. However, it has not demonstrated its capacity and willingness in any other projects on Narmada. The most eminent cases are Bargi and Sardar Sarovar. Thus, there is no basis to believe that the situation would be different in case of Maheswar.

5. It is feared that the government would eventually settle for cash compensation in lieu of provision of cultivable lands and resettlement of people as cohesive communities. Given the fact the government could not identify lands that are cultivable and large enough to resettle communities together it may not take pains to find lands for rehabilitation. The experience of Jalud people, whose lands were acquired in late 1980s and early 1990s, shows that the project authorities will settle for easy option, i.e., to provide only cash compensation. Any attempt to take this route will certainly fail the project. Positive action from the government is needed now to assure people that it has got the capacity and willingness to resettle people properly.
  - The Maheswar project must find cultivable lands comparable in quality to that of the lands being submerged. Further, lands must be found in large quantity to enable resettlement of people as a cohesive social unit, preferably village and hamlets as a whole. Any move that would compromise rehabilitation as a community would be a regression as a social policy. Rehabilitation of people as a community is the agreed principle at this point in time.
1. A significant body of knowledge has been accumulated through experience over a period of time that programmes planned and implemented without the informed participation of the people concerned met with absolute failure. This is more so in programmes involving R&R of displaced people. The Maheswar project affected people have neither been consulted nor been provided opportunity to participate in development of R&R package. They are not provided representation in any committee meant for land acquisition, resettlement and rehabilitation. The affected people are asked to give up their lands, properties and livelihoods thereby relinquishing all capacity to lead an honourable life. They were never consulted about setting up the project in the area, had no say in assessing the value of their lands and livelihoods lost, and were provided with no capacity to demand and receive just rehabilitation provisions.
  - In a state like Madhya Pradesh that has made significant progress on right to information movement, it is appalling that such a large project is being implemented without taking the affected people into confidence. It is essential to inform people about the project details, power purchase agreement, what alternative options could have been possible to the terms of agreement signed with S. Kumar's. The R&R package must have been discussed with the affected people. In the absence of all these basic initiatives, the project has been wrongly allowed to make progress.
1. The GoMP must do the following:
  - The GoMP has not done a complete enumeration of people in the submergence zone. The 1991 Census may provide a base, but it does not project the situation as it is today and it also does not provide information about all the project affected people. The project must have recent enumeration. The GoMP must conduct household surveys to enumerate all people who would be affected by the Maheswar project. It is important to know how many families would be directly and indirectly affected by the project. This survey should be done by credible institutions with the participation of the affected people and NGOs.

- The new enumeration must also assess the social, economic, demographic and psychological condition of people. The pre-project assessment is crucial to assess the impact of displacement, and how R&R package will alter the people's condition. At present there is no assessment available.
- The GoMP's R&R policy must change to recognise major daughters and sons as project affected. The Indian people have achieved certain elements of R&R policy that could be considered as humane through prolonged struggles in case of Sardar Sarovar (Gujarat policy) and Tehri projects. In case of both the projects, the landless and major sons get land. In case of Tehri, major daughters are also recognised as major families and are entitled to land and other rehabilitation provisions. Though both these projects are yet to demonstrate their capacity to actually resettle all affected people with all provisions that might lead to re-establishment of livelihood destroyed by these projects, the policy gains are important. There is no reason to believe why people affected by Maheswar project will compromise the gains made by their counterparts in Gujarat and Uttarakhand. Social policy gains should not be compromised.
- The resettlement and rehabilitation must take place prior to construction of the dam. If the government actually wants to have the project, then it must have the power to resettle the people prior to construction of the dam itself. The affected people have no way of making the government to actually resettle them once the project is completed. Since displacement affects people's lives, construction work can stop until people are resettled.
- ***The company and the German collaborators slated to benefit from the project should be made responsible for resettlement and rehabilitation prior to execution of the project.*** If the State owned National Thermal Power Corporation and Tehri Hydro-electric Corporation, for example, are responsible for R&R of people displaced by their projects, there is no reason why the private sector can not be held responsible for the R&R work. All past experiences have clearly shown that the private sector corporations / companies owning the project and the State Government responsible for R&R work have not fulfilled their commitments. Invariably, affected people emerged as losers, and suffered immensely. In the current situation where GoMP is responsible for R&R, and private companies are depositing meagre money for R&R work, such a situation will be repeated. Since the private companies are set to enjoy the profits, they must be held responsible for the R&R work. There can not be separate rules for public sector and private sector organisations. Let the company resettle and rehabilitate the affected people prior to execution of the project.
- The Maheswar dam will submerge some of the best lands in the country. As compensation for the loss of land and livelihood, the affected people can be joint owners of the project itself. Let the people benefit from their investment - that is sacrifice of land and livelihood.

The Maheswar project is making progress without meeting basic conditionalities:

1. studies essential to identify affected people;
2. studies to assess socioeconomic condition of the people and establishment of baseline indicators against which future R&R progress can be measured;
3. involvement of people in establishing R&R provisions;
4. identification, purchase of lands with the approval of affected people, and lands adequate in quantity to resettle people as a community; and
5. resettlement of people.

***Since none of these basic aspects are completed, Maheswar project should not be allowed to make further progress.***

## Appendix 1: Socio-Economic Profiles of three affected villages

### VILLAGE PROFILES

#### 1. JALUD

Jalud is the nearest village from the damsite on the Narmada river. It is also among the first sites to be affected in Phase I after the construction of the dam and has been included in the fully affected villages.

There are about 128 households in the village. The caste distribution of households is: Scheduled castes - 90; Rajput - 33; Thakurs - 3; Bharuds - 3; Gujjar - 1; Kevat - 1. Of the 90 dalit families, 17 own agricultural lands. The largest amount of land owned is 40 acres, and all lands are irrigated by means of pipeline laid from the Narmada to the fields. Cotton, jowar, chana, groundnut, vegetables such as tinda, amadi, sweet gourd etc. are harvested from the land.

The dalit hamlet is situated half a kilometre away from other households in the main village. The dalits lived in the main village but due to three floods in 1961, 1970 and 1979 waters from the river entered into their homes. Thus, they moved out of the main village and settled in the present area. Most families in the dalit hamlet are included in the below poverty line category by the state government. Electricity has been provided to the hamlet since 1975. Certain government schemes, specially those meant for BPL population, have benefited a few families in the hamlet. These include:

- Pensions for old / Widowed persons.
- houses were constructed under the Indira Awaas Yojana.
- Loans were provided to buy livestock some 10-15 years ago. Nobody returned the money due to disease and death of livestock.

Since 1990 the government's support to the development and welfare aspects have declined because of the eventual submergence of the village.

There is one tap for drinking water in the dalit hamlet, currently under repair due to which women spent considerable time in fetching water. Some of the people work in the public health engineering department which gave pipeline connections to their houses. A PDS outlet is shared between 3 villages and is situated in Mandaleshwar,

The nearest medical facility is in Mandaleshwar which is 4 kms away. A nurse visits the village for care and treatment of expectant mothers and children. The village has a dai. There are no traditional healers in the village providing treatment. In case of emergencies, the sick are carried to Mandaleshwar. The household size is high, and overall fertility is also high. People give great importance to male children. Eligible couples do not accept family planning measures unless they have had a minimum one or two male children. The largest family in the village had 11 members (the parents and their nine children).

Jalud has a primary school imparting education upto Vth. standard. Girls are educated the Vth, and sometimes not at all, while the boys go beyond primary school. The most educated person in the hamlet is a male who has a M.A. degree in Economics. In Jalud 40 boys are educated, and many among them have completed higher secondary school, while a few others have done ITI courses (tables in Appendix 4).

The people of Jalud are engaged in agricultural wage labour for most of the year. The extent of wage labour availability fluctuates throughout the year, and in summer months the situation can get difficult. Sand quarrying work is available till the beginning of the rainy season.



The sand extraction work has however come to a complete halt with the beginning of the construction work on the dam. The average wage for a woman for a day's work in agriculture is Rs.25 while it is higher for certain other kinds of work. For example cotton picking can bring in as much as Rs. 60 a day for women. Men are paid Rs. 40 per day, the type of work done by men and women being different. During harvest season they are paid in kind (wheat, fodder, vegetables depending on the type of harvest reaped). For sowing, equal wages are given to men and women. For cotton harvesting and weeding more labourers are required. Therefore, more wages are demanded. Sometimes the farmers brought as many as 100 labourers from nearby places such as Mandaleshwar, Sulgaon, Khargone and Lepa.

A number of young people also do other kinds of work which pay more but can also be very demanding physically, such as sand quarrying, construction work, contract labour to load and unload, and other contract work in and around the village. A few are involved in work at the damsite. A few young men migrated to Indore for work in construction, commerce and service sector. Earlier people from Jalud used to migrate to Gujarat which has now stopped, since considerable labour opportunities are available in and around the village. Among the land owners, 1 to 2 persons from each family viz., accounting to 40 men from higher castes work in Public Health Engineering department, Indore Jal Yojana and now with S. Kumars. The employment opportunity for educated individuals from economically better off and high caste families have grown in the 1990s.

Caste is an important factor in the social organisation of the village. The high caste groups have separate priests and barbers. They do not socially interact with dalits.

There are two tractors in the village which are also hired out to others. The charges for ploughing 1 acre of land was Rs.160. Most of the other cultivators use bullocks for ploughing the fields. The total agricultural land available in the village is 555 acres which is fully irrigated by 30 motors pumping water from the river to the fields. Those who do not own a pipeline buy water from those who own at the rate of Rs. 1 per H.P. Due to irrigation facilities three crops are harvested in a year. Cotton, wheat, pulses, cereals and vegetables are grown. According to the farmers, they grow 'everything'. The nearest market for cotton is at Badwa, Dhamnod and Terai. Vegetables are cultivated primarily for market, and made available for domestic use as well. Indore provides excellent opportunity for sale of vegetables. There are contractors to buy vegetables from the farmers.

Work on the dam was started two and a half years back. The S.Kumar's promised to build a model village for the inhabitants of Jalud as they wanted to demonstrate their better intentions and capacity to the people of other affected villages in the area. The Jalud people thought S. Kumar's meant business. The villagers then learnt from the MPEB that they would be resettled in 1999 and the reservoir would be filled in 2000.

The MPEB and S. Kumar's have since changed their stance, and announcing that the affected persons would be allocated *Kutirs* under the Indira Avas Yojna and it is the responsibility of the villagers to build their own homes. In 1989, Under Article 17 of the Land Acquisition Act, land was acquired in Chota Khargone, and Mandaleshwar. The people of Jalud refused to part with their lands until rehabilitation benefits were given to them. An account was opened in the banks on their names by the government agencies and money was deposited in the accounts. The amount paid was Rs. 17000 per acre for unirrigated and Rs. 30000 per acre for irrigated lands. The present rate of the land is Rs.100,000 to Rs.150,000 per acre. (For the last one year there have been no transactions regarding land and people are not willing to sell their lands). People filed cases against the banks for their unilateral decision to open accounts without the consent of the people. This prompted the banks to return the money to MPEB. The people in fact did not have knowledge about the R&R policy provisions, therefore, they procured a policy manual made by the NVDA. The people then approached the NBA for help.



Losses incurred or likely to be incurred due to the Dam construction activity.

Present losses

(a) Due to blasting at the damsite a number of houses have been damaged severely and walls have developed cracks and structural wooden joints have been fractured. The entire structure (house) trembles making it unsafe for the people inside the house.

(b) The Nistar rights of the Jalud villagers have been violated due to the construction of barbed wire fences:

- The agricultural fields of some villagers have become inaccessible. The villagers are not allowed to enter their fields by the Police who are camped at the site.
- Grazing land has been taken away. The cattle is unable to reach graze in the 'chamoi', and are often injured due to the barbed wires.
- People have lost access to the motor pumps situated on the banks of the Namada river due to the construction work. If the crop is not watered in time, it results in loss of the entire crop.
- Cremation ground which is shared by three villages has become inaccessible.
- Even land which was used by villagers for answering nature's call has been rendered very difficult to access. This causes immense problems to the people specially to the dalit women who do not have any place which could be used for the purpose.

(c) Due to construction of the coffer dam and powerhouse, stagnant and polluted water has pooled in places. Livestock belonging to the dalits have died due to drinking this water. In one family 19 goats have died after drinking the water.

(d) A canal has been built near the village due to which floods occur during the rainy season.

Future losses

(a) Agriculture is the only source of livelihood, as the land is highly productive and people have no alternative occupation.

(b) The benefits cannot be calculated in terms of money, as the profits are shared among and between generations.

(c) Money received as compensation may not retain its current value in the future, whereas value of land will only increase several fold.

(d) Lift irrigation has brought about tremendous gains for the villagers, the loss of which can never be compensated by the government.

## 2. BEHGAON

Behgaon consists of 209 households with a population of 1200 people. About 50 % of the households owned while rest are landless labourers. The Kahars are the largest caste group with 50 households, followed by Kevats with 45 households. The other caste groups in the village are : Rajputs - 25, dalit 25; Bharud -15, Patidar - 10; Adivasi - 9; Brahmans - 8; and others 22 which include Sutar, Jat, Prajapat, Bhilala and Yadav.

The maximum amount of land owned by a farmer is 30 acres and all lands irrigated. A large majority owned land upto 2 acres. Among the Dalits the maximum land owned is 9 acres. The village has 901 acres of cultivable land of which 601 acres viz. 66 % are irrigated. Half the irrigated lands is served by wells, while the rest by the river. Those without their own irrigation system use the facilities of other farmers on payment of money. The sale value of each acre of land is Rs.150,000.

The principal crops are cotton, sugarcane, soyabean, wheat, pulses, vegetables and fruits. Cotton is the most profitable crop although the expenses incurred on pesticides are as much as Rs. 2000 to Rs. 3000 depending on the area under cultivation. In one acre land, the quantum of cotton output is 2 quintals. The Soyabean crop is the most profitable, if adequate investment are made. The rate of soyabean is Rs. 1200 per quintal. The sugarcane crop is utilised for jaggery production. The markets for selling jaggery is at Karia and for cotton is at Sanavad..

There are three cottage industries in the village producing Jaggery. From these units 5 kadais of jaggery are made each day per unit during the season. About 40 workers are required for each unit for two shifts, in each unit. One day's earning for each worker is Rs. 35. This village has attracted migrants from other places in the past 20 years. The workers employed in the units are adivasis who came from Manavar, to the area in November and stay on till January. Wages for the agricultural labour is @ Rs. 30 per day. Women are paid Rs. 20 a day for sowing and weeding. During wheat harvesting, payment is made in kind, 8 kgs of wheat (cost of wheat is Rs. 5 a kg).

In Behgaon village, the main form of non-agricultural wage labour is sand extraction. This work is available for 8 months in a year. In the local terminology this work is called as '*Rayti Khadan*', and involves both extraction of sand from the river (shallow water) and loading it into trucks. This sand is sold in Indore at the rate of Rs.3000 per truck. The labourers work in teams and are paid at the rate of Rs. 400 per truck which is shared equally by all members of the team. On an average a team of 10 men can load 5 trucks per day. In Behgaon, 100 trucks are filled every day and the work continues for 24 hours. Usually men work in the sand extraction. Women manage the boats, while the men in their family filled the sand into the boat

Sand quarrying work is done as per the Govt.'s directives. Samitis of 25 persons belonging to the weaker sections of the village are formed. Licenses to do the work is given to these Samitis. A block (land) is allocated to each of the Samitis. Presently it stands at 20 acres, 15 acres, 8 acres and 5 acres and the Samiti pays Rs. 2 lakhs per year to the Govt. for the lease.

\* Cattle population consists of bullocks, buffaloes and cows which are used for both energy as well as milk. There are 1000 goats which are owned by the economically weaker sections. The livestock is stall fed and also grazed on the Govt. land.

Facilities for education include a school upto the middle (VIII). For higher education the students have to go out of the village. The nearest facility is across the river, at Mardana, Pipla (10 kms away), Nandra and Mandaleshwar. In some cases, children are sent to their maternal uncles home for studies.

Girls are educated till the V standard and are married at an early age. The age of marriage differs among the caste groups, for example, among the Patidars, Gujjars the marriage age for girls is 18 years and above, and among the Dalits it is 13 years (approx.) and among the Kevats the girls are married off before menstruation, usually at 11 years. Dowry is given according to the economic status of the family. It may include utensils, jewellery and household articles. The amount spent differs between the caste groups. Among the Gujjars and the Patidars a large number of weddings take place on the same day. All the involved parties have to pay a certain amount towards the weddings. The amount spent on the weddings depends on the financial position of the family (table in Appendix 4).

Medical health facility is not available in the village. A dai resides in the village but most of the people prefer to go to the hospitals for deliveries. In the case of an emergency, a person owning a vehicle obliges the sufferer and takes him/her to the hospital. There is no charge, the favour depends on the relationship with the person. At the most, the money spent on fuel is repaid. The village has 2 tractors and 12 two-wheelers. The economically weak do not own vehicles. So, if one of their members is unwell they have to carry that person in a cot or request others with vehicles to take them to the hospital.

The Gram Panchayat is for 3 villages and the office as well as the Gram Sevak both are in the other villages.

### 3. MARDANA

Mardana has about 650 households with a population of nearly 3500. The total amount of private agricultural lands are 4000 acres which is irrigated by wells, lakes (which is 6 miles away) and the river.

the Gujjars, spread across 120 villages in East and West Nimad, are the most prominent caste in Mardana. The community consists of landowners, with the largest possessing 70 acres and the least 3 acres. Approximately 1 % of the community members are landless. The Gujjars originally migrated from Gujarat some 500 years ago. They were rewarded with land, by the King of the region for their role in killing a monster who resided in a fort (just outside the village). The ruins of the fort can be seen today. Among the other caste groups, the Kahars, the Dalits, Nahals are the largest but are landless labourers. Rajputs are small in number minor but still a powerful landowning caste group.

Major crops cultivated include Soyabean, Chillies, Sugarcane, Wheat, Pulses, Vegetables and Bananas have been grown recently. The markets for Mirchi is at Bodia at a distance of 20 kms, reputed to be the second largest in Asia, while cotton and wheat are sold at Sanavad, 35 kms away. In 1 acre of land the farmers reported a profit of Rs. 20,000, in 1 hectare it is Rs. 50,000. The cost of 1 acre of land is Rs. 1 lakh to Rs. 1.5 lakh.

The type of livestock include bullocks, buffaloes, cows which are mainly used for milk and for energy (ploughing, pulling carts). and dung used for fuel, dried and also as gas. Goats, sheep, mules, pigs and poultry are also bred. There is no co-operative for dairy products due to which sale of milk is done in a limited way. In some houses the livestock are stall fed and in others, are taken for grazing. Usually for watering and bathing cattle, they are led to the river. The landless usually breed goats, for milk and meat and pigs, sows and hens for meat, both for domestic consumption as well as for selling. Mules are also bred by some caste groups.

Agricultural labour is a major source of livelihood for the landless. The average agricultural wages for women being Rs. 20 and for the men Rs. 30. The wages are according to the type of work, for cotton picking it is Rs. 1 per kg and for chillies it is Rs. 15 per bag. Thus on an average a labourer can earn a minimum of Rs. 50 per day in the harvesting season. For

wheat harvesting the payment is in kind upto 10 kgs of Wheat for a day's labour. Some workers enter into an agreement with the landowners to work for a year and a lumpsum amount of Rs. 12000 is paid for a year. The sum is paid at the beginning of the year and is treated as a loan by both the parties. During the course of the year the labourer may or may not work outside, depending on the agreement.

Non - agricultural wage labour includes construction activities, digging of wells and trenches for laying pipelines, sand quarrying, and cattle grazing. In the first two activities, payment is made according to the contract and varies between each contract. For sand quarrying it is a minimum of Rs. 100 per day and cattle grazing is usually a contract for a year where the person is paid Rs. 5000 for the year and is given 2 meals a day by the employer. At present, since the avenues for construction and digging works has become very limited due to the Dam construction, people have been forced into the agricultural work. In the recent years about a 100 families have migrated into the village and are currently residing there throughout the year.

There are 12 tractors in the village besides which there is a Tata Sumo and 55 motorcycles. Most of the vehicles belong to the dominant castes. Besides these modes of transport, there are bus services thrice in a day, one to Khargone and two to Sanavad / Omkareshwar.

Mardana has three schools, a primary, a girls and a higher secondary which cater to children in the village and those staying within a reasonable distance from the village. The male children study till the higher secondary and sometimes more, the female children are not present in the same numbers for higher secondary. The children of the landowners and the dominant caste groups go to school but the children of the Dalits and all other socially and economically weaker caste are seldom sent to school. This situation can be explained by the economic pressure acting on vulnerable households which force them to select short term goals such as contribute to the family income in lieu of long term goals like sending the children to school (table in Appendix 4).

The status of women is low. This can be seen from the emphasis on the male child and the neglect of the girl in vital areas such as education, decision making etc. But more women are coming out due to the work of the Andolan wherein women have been seen as playing a vital role.

## ANNEXURE 2

### PERCENTAGE DISTRIBUTION OF HOUSEHOLD INCOME

CASTE	AGRI	WAGE LABOUR		BUSINESS	FISHING	OTHERS	TOTAL	PER CAPITA INCOME	
		AGRI	NON-AGRI					per year	per month
adivasi	0.00	92.66	0.00	2.28	0.00	5.06	100	5267	439
banjara	41.67	54.17	0.00	0.00	0.00	4.17	100	8571	714
bargunde	80.13	0.00	0.00	17.31	0.00	2.56	100	5167	431
barud	64.62	35.38	0.00	0.00	0.00	0.00	100	7110	593
brahmin	19.58	0.00	41.77	19.08	0.00	19.58	100	11593	966
dalit	44.90	27.85	11.51	7.91	0.00	7.83	100	6540	545
dhobi	10.47	89.53	0.00	0.00	0.00	0.00	100	3185	265
gawli	0.00	100.00	0.00	0.00	0.00	0.00	100	9600	800
gujar	87.07	0.00	0.00	12.93	0.00	0.00	100	36029	3002
kahar	20.66	13.97	35.27	6.75	16.30	7.06	100	10948	912
kanude	0.00	26.32	73.68	0.00	0.00	0.00	100	1140	95
kayastha	41.67	0.00	0.00	58.33	0.00	0.00	100	27692	2308
kewat	51.82	18.69	19.07	5.06	0.00	5.36	100	8288	691
mehtar	0.00	0.99	82.77	0.00	0.00	16.24	100	12928	1077
nahal	0.00	87.05	3.07	0.00	0.00	9.88	100	8541	712
nai	0.00	0.00	0.00	85.29	0.00	14.71	100	20400	1700
namdev(nb)	81.63	0.00	0.00	0.00	0.00	18.37	100	3920	327
pal	12.90	0.00	38.71	48.39	0.00	0.00	100	3100	258
patedar	100.00	0.00	0.00	0.00	0.00	0.00	100	17000	1417
rajput	85.29	5.71	8.72	0.00	0.00	0.28	100	11305	942
sutar	47.20	0.00	52.80	0.00	0.00	0.00	100	16667	1389
thakur	82.94	0.00	17.06	0.00	0.00	0.00	100	15630	1302
thelli	0.00	0.00	0.00	100.00	0.00	0.00	100	3600	300
vaishya	100.00	0.00	0.00	0.00	0.00	0.00	100	40000	3333
yadav	78.43	7.84	0.00	0.00	0.00	13.73	100	19615	1635

BUSINESS IN THE VILLAGE : Ex: BAHEGOAN VILLAGE

Income from business in the village Bahegoan.

sl.no	Business	Daily income	Yearly income	supports	client location
1	shop	50	18000		within&outside village
2	tailor	50	18000	two machines	within
3	carpentry		18000		within&outside village
4	barber	40	14400	foodgrains	within
5	shop		36000		within
6	shop		36000		within
7	shop.sewing	100	36000		within&outside village
8	tailor	50--75	15000	two machines	within&outside village
9	barber		20000	wood,fuel	within
10	priest	30	10800	foodgrains	within
11	teastall	50	12000		within
12	shop	100	36000		within
13	shop	100	25000		within

\* Shop -- provision store

**"SAMRAJ KI BEDI" REHABILITATION SITE :  
REHABILITATION OR FRESH DISPLACEMENT?**

S. No.	Name	Caste	Amount and Status of Land taken by the Govt	Process of taking the Land
1	Kalu Morar	Harijan	2.5 acres non-titled land (1 acre titled land + 1 acre non-titled land left)	Land was bulldozed and occupied by the Government. Nothing in-lieu was given
2	Bholu Morar	Harijan	1 acre land non-titled	Land was occupied by the Government. Nothing was given in lieu.
3 4 5 6 7	Madan Kailash Madan Rajnath Madan Gajanand Madan Ramlal Madan	Harijan	11-12 acres of titled land	Land was occupied by the Government. Nothing was given in lieu.
8	Bharat Nihala	Harijan (Chamar)	2 acres of titled land out of a total holding of 4.52 acres was taken	Protest not heard. Nothing given in lieu.
9 10	Anokhibai Shankar Sajanbai Gopal	Bhil (tribal)	2-3 acres out of a total holding of 9 acres titled land was taken	Without any land acquisition process or information Around 3 acres of waste land given instead which is unacceptable to PAF. Son Nathu Shankar was attacked and beaten with lathis by the police when he went to complain at Govt. camp.
11 12 13	Revaram s/o Dalia Ganpat Sitaram s/o Dalia Ganpat Dhansingh s/o Dalia Ganpat	Bhil (tribal)	6.2 acres out of a total of 11 acres titled land joint holding by three brothers has been taken  Revaram had 3	No notice was given nor any legal process of land acquisition followed. Some waste land was given instead of the titled land

			<p>acres on non-titled land for which he had receipt. This has been entirely taken +</p> <p>Sitaram had 3 acres of non-titled land for which he had receipt. This has been entirely taken away +</p> <p>Dhansingh had 4 acres encroached land for which he had receipt. This has been entirely taken away.</p>	<p>which is unacceptable to the family.</p> <p>Nothing was given in lieu of the 30 year old encroachments.</p> <p>When Anu w/o Dhan Singh went to protest, she was driven away and bulldozers moved on to the land</p>
14	Babu Ganpat	Harijan	3 acres of non-titled land was seized, 7 acres of titled land remains	No information was given. The revenue officials came to the village and seized the land.
15	Revaram Hiralal	Harijan	Land was seized without notice	Exact details not known
16	Rajan Hiralal	Harijan		
17	Lakshman Bhila	Bhil (Tribal)	<p>10 acres of an old encroachment (with receipts) seized. 22 acres of land left with family.</p> <p>This land was under cultivation</p>	<p>When Chagan Bhila went to protest, he was attacked with lathis and made to flee.</p> <p>No prior information, process of land acquisition etc.</p>
18	Chagan Bhila			
19	Rama Bhila			
20	Bhagirath Bhila			
21	Govind Bhila			
22	Lavkush Lakshman			
23	Nanuram Lakshman			
24	Gajanand Lakshman			
25	Sheru Lakshman			
26	Mukund Lakshman			
27	Nania Chagan			
28	Mangilal Chagan			
29	Bhuria Chagan			
30	Mukesh Rama			
31	Sukhlal Rama			
32	Shantilal Bhagirath			
33	Sunil Bhagirath			
34	Hinmat Singh Govind			

**AVAILABILITY OF LAND FOR MAHESHWAR PROJECT AFFECTED FAMILIES :**  
**MYTH AND REALITY**

S. No.	Name of Village	Availability of land in ha. (Acc. to Govt. Document 1 ) *	Availability of land in ha. (Acc. to Govt. Document 2 ) **	Availability of land in ha. (Acc. to Govt. Document 3 ) ***	Availability of land acc. to people	Details of Land	Comment on Govt. figures regarding availability
	<b>MAHESHWAR TEHSIL</b>						
1	Jalud	Gl. 42.525 Jalud	Gl. 30.425 Pl. 00.000 <u>Total 30.425</u>	Gl. 30.425 Pl. 00.000 <u>Total 30.425</u>	0	There are 30 ha. of government land situated on the banks of the Narmada which is in submergence. However, all three Govt. documents talk of providing land in Jalud. Yet, now, the govt. is trying to resettle the Jalud villagers at the stony hillock of Samraj ki Bedi 4-5 km. away. This place is a unfertile and part of it is being cultivated by some families of Samraj. After taking away their lands, the stony land of Samraj is being excavated and filled in with silt from nearby ponds. It is clear that this topsoil will be washed away in the monsoon. The ponds from where silt is being excavated (Sangi) and from where it is proposed to be excavated (Mandaleshwar pond) support 250-300 families from 7 villages who own titles to said land (for draw down cultivation). Therefore even as Jalud village will not be rehabilitated, more families will be displaced in the attempt to rehabilitate it.	The figures are false
2	Kunda	--	--	--	--		
3	Bhasunda	--	Gl. 4.00 Pl. 4.00 <u>Total 4.00</u>	Gl. 4.00 Pl. 4.00 <u>Total 4.00</u>	0	The govt. has not asked anyone for private land nor is a single person prepared to give his / her land. The claim of PL is without basis.	False claim
4	Sulgaon	Gl. 178 58 Sulgaon 30 Bhasunda 10 Balapura 50 Gogana 30 Digar	Gl. 55.505 Pl. 31.000 <u>Total 86.505</u>	Gl. 55.505 Pl. 31.000 <u>Total 86.505</u>	0	All the Gl. mentioned is in the banks of the Narmada, prone to erosion, infertile and at a lower level than submerging fields. Therefore, it too will be submerged	Claim without basis
5	Lalpura	Gl. 4.00 Lalpura Pl. 0.00 <u>Total 4.00</u>	--	--	0	Land offered is at the banks of the Narmada, in submergence and therefore unsuitable for rehabilitation	Connected claims
6	Gogawa	Gl. 5.00 Gogawa	Gl. 0.00	Gl. 0.00	0	All Gl. is on the banks of the Narmada and in	Baseless



		PL 0.00 <u>Total 5.00</u>	PL 24.00 <u>Total 24.00</u>	PL 24.00 <u>Total 24.00</u>		submergence. It is clear that rehabilitation is impossible on this land. No one is prepared to give PL for rehabilitation. i.e., availability of PL is a false claim	and imaginary claims
7	Digar	GL 6.00 Digar PL 0.00 <u>Total 6.00</u>	--	--	0	No land available for rehabilitation	Imaginary Figures
8	Pathrad Khurd	GL 20.00 Pathrad GL 20.00 Chirakhan GL 60.00 Jalud PL 0.00 <u>Total 100.00</u>	GL 80.00 PL 53.00 <u>Total 133.00</u>	GL 80.00 PL 53.00 <u>Total 133.00</u>	0	All GL is at the shores of the river and in submergence. Rehabilitation is not possible on these lands. No one is prepared to give private land, i.e. both claims of availability of GL and PL are false	Baseless and Imaginary Claims
9	Chirakhan	GL 26.00 Chirakhan PL 0.00 <u>Total 26.00</u>	GL 0.00 PL 47.00 <u>Total 47.00</u>	GL 0.00 PL 47.00 <u>Total 47.00</u>	0	All GL is in submergence. No one is prepared to give PL.	Concocted and Imaginary Figures
10	Behgaon	GL 110.00 Behgaon PL 0.00 <u>Total 110.00</u>	GL 48.00 PL 22.00 <u>Total 70.00</u>	GL 47.00 PL 23.00 <u>Total 70.00</u>	0	There is approximately 50 acres of stony, eroded and barren land which submerges every monsoon. Part of this has been encroached upon by 17 families (old encroachments). They have titles to these encroachments. Since this land submerges in monsoon, rehabilitation on it is clearly impossible	Baseless and Imaginary Claims
11	Pandyaghat	GL 37.00 PL 0.00 <u>Total 37.00</u>	--	--	0	All GL comes in submergence. No agricultural land available. Therefore clearly govt. claims as to availability are false.	Concocted and unreal claims
12	Khedi	GL 110.00 Behgaon PL 0.00 <u>Total 110.00</u>	GL 0.00 PL 20.00 <u>Total 20.00</u>	GL 0.00 PL 20.00 <u>Total 20.00</u>	0	Govt. land available in Behgaon is in submergence. Therefore rehabilitation of any village on it is impossible. No one is prepared to give his/her private land in Khedi. Therefore, both claims are false.	Concocted and Imaginary figures
13	Sejgaon	GL 2.00 Sejgaon PL 0.00 <u>Total 2.00</u>	GL 11.655 PL 0.00 <u>Total 11.655</u>	GL 11.655 PL 0.00 <u>Total 11.655</u>	0	There are just 2 ha. of GL which is barren and unfit for agriculture. There is 1 ha of encroachment.	Unreal Govt claims
14	Fatepur	GL 4.00 PL 0.00 <u>Total 4.00</u>	--	--	0	No land available	--
15	Pitamli	GL 158.00 POLITICAL PL 0.00 <u>Total 158.00</u>	GL 0.00 PL 61.786 <u>Total 61.786</u>	GL 0.00 PL 61.786 <u>Total 61.786</u>	0	GL is on the banks of the river and submerges even before the rest of the village. Part of it is encroached 10-15 people have received titles to it. There is no land available for agriculture. No farmer is prepared to give up his/her land either	Concocted Figures
16	Kavdia	GL 9.00 Kavdia	GL 0.00	GL 0.00	0	There is 2.5 acres of land at the banks of the	Concocted

		GL 20.00 Pitarnli PL 0.00 <u>Total 20.00</u>	<u>PL 14.00</u> Total 14.00	<u>PL 14.00</u> Total 14.00		Narmada which is encroached. This submerges in monsoon. No private land is available. Therefore, both in Pitarnli and Kavdia, no land is available.	Figures
17	Sitowka	GL 37.00 PL 0.00 <u>Total 37.00</u>	GL 0.00 <u>PL 10.00</u> Total 10.00	GL 0.00 <u>PL 12.00</u> Total 12.00	0	All GL is in submergence. 5-6 people have encroached on GL close to the Narmada. No one is prepared to give private land.	Concocted and imaginary figures
18	Nimgul	GL 54.00 Nimgul PL 0.00 <u>Total 54.00</u>	GL 0.00 <u>PL 12.00</u> Total 12.00	GL 0.00 <u>PL 12.00</u> Total 12.00	0	25-30 people cultivate encroachments on GL on the banks of the river to which they have titles. No GL or PL available for rehabilitation	Land figures are untrue
19	Bhampura	GL 21.00 Bhampura PL 0.00 <u>Total 21.00</u>	--	--	0	GL on Narmada banks is in submergence. There are 12 ha of on the banks of a stream and a river (Kholar river) which is submerged by the river. 7-8 people also have encroachments on the banks of the Kholar. Therefore, no land available for rehabilitation	Unreal and false figures
20	Khegaon	GL 54.00 Khegaon PL 0.00 <u>Total 54.00</u>	--	--	0	All GL is on the Narmada banks and in submergence	Unreal and false figures
21	Dhavatiya	GL 19.00 Dhavatiya PL 0.00 <u>Total 19.00</u>	--	--	0	There is no information about land available.	Unreal figures
22	Gangat Khedi	GL 48.00 Gangat Khedi PL 0.00 <u>Total 48.00</u>	GL 0.00 <u>PL 16.00</u> Total 16.00	GL 0.00 <u>PL 16.00</u> Total 16.00	0	Whatever GL is there is on the river banks and will be in submergence. 15-20 families also have encroachments there. No PL available in Gangat Khedi	Unreal and imaginary figures
	BARWAH TEHSIL						False and unreal information
23	Kapasthali	GL 49.00 Kapasthali GL 4.00 Semurla PL 0.00 <u>Total 53.00</u>	--	--	0	No GL available for rehabilitation. PL available at river banks but will come in submergence	False and unreal information
24	Semurla	GL 45.00 Semurla PL 0.00 <u>Total 45.00</u>	--	--	0	10-20 acres of GL which is stony and unfit for cultivation, but most in submergence. There are private lands at the river banks which are lying fallow but are in submergence. i.e. no land available	False information
25	Muralla	GL 102.00 Muralla PL 0.00 <u>Total 102.00</u>	--	--	0	350 acres of GL, spread over hillocks. Unfortunately, this land is stony and part of it is eroded and with yellow soil. No land fit for rehabilitation available.	Baseless and false information

26	Belsar	GL 37.00 Belsar PL 0.00 <u>Total 37.00</u>	GL 0.00 PL 5.622 <u>Total 5.622</u>	GL 0.00 PL 5.622 <u>Total 5.622</u>	0	GL is on riverbank and will submerge. 10-15 families have encroachments and titled fields. No land available for rehabilitation.	False and baseless information
27	Ramgarh	GL 19.00 Ramgarh PL 0.00 <u>Total 19.00</u>	--	--	0	10 ha of GL which comes in submergence. Even otherwise, this land is of poor quality, stony and encroached. No land available.	False and unreal information
28	Katghada	GL 16.00 Katghada PL 0.00 <u>Total 16.00</u>	--	--	0	All GL is in submergence. Therefore, no agricultural land available	False and unreal information
29	Mehta Khedi	GL 27.00 Mehta Khedi PL 0.00 <u>Total 27.00</u>	--	--	0	80-90 acres of GL available, but it is on river banks and already encroached	False and unreal claims
30	Sustiya	GL 10.00 Sustiya PL 0.00 <u>Total 10.00</u>	--	--	0	15 acres of GL, but all in submergence.	Imaginary figures
31	Navghat Khedi	GL 42.00 Navghat Khedi PL 0.00 <u>Total 42.00</u>	--	--	0	Some GL, but it is on the river banks but it is already encroached and will submerge	False figures
	KASRAVAD TEHSIL						
1	Lepa	GL 70.00 Lepa GL 11.00 Amlatha PL 0.00 <u>Total 81.00</u>	GL 0.00 PL 60.114 <u>Total 60.114</u>	GL 0.00 PL 60.114 <u>Total 60.114</u>	0	There is no land available which does not submerge and is fit for cultivation	Figures false and baseless
2	Lalpura	GL 13.00 Lalpura PL 0.00 <u>Total 13.00</u>	--	--	0	There is no GL available which does not submerge	Figures false and unreal
3	Amlatha	GL 155.00 Amlatha PL 0.00 <u>Total 155.00</u>	GL 0.00 PL 111.928 <u>Total 111.928</u>	GL 0.00 PL 111.928 <u>Total 111.928</u>	0	GL available in riverbanks has been encroached for the last 15-20 years. It is also in submergence, hence no land available for rehabilitation.	Claims baseless Figures about PL are imaginary
4	Shivrampura	GL 19.00 Shivrampura PL 0.00 <u>Total 19.00</u>	--	--	0	This land is affected by Bansavali river and therefore not available for cultivation	Govt figures are unreal
5	Teliyan	GL 76.00 Teliyan GL 20.00 Bhatiyani PL 0.00 <u>Total 96.00</u>	GL 0.00 PL 34.410 <u>Total 34.410</u>	GL 0.00 PL 34.410 <u>Total 34.410</u>	0	Every year, because of flooding, during the monsoon, the villages of Teliyan have to move to Sasabarud. Since the village is on the river banks, no GL for rehabilitation	Unreal figures
6	Bhatiyani Buzurg	GL 170.00 Bhatiyani PL 0.00	GL 0.00 PL 132.244	GL 0.00 PL 34.410	0	GL is encroached and on river banks and will submerge. No one is prepared to give his / her	Concocted figures

		<u>Total 176.00</u>	<u>Total 132.244</u>	<u>Total 34.410</u>		private land. Clearly no land available for rehabilitation	
7	Sasabarud	GL 17.00 Sasabarud PL 0.00 <u>Total 17.00</u>	GL 0.00 PL 17.386 <u>Total 17.386</u>	GL 0.00 PL 17.386 <u>Total 17.386</u>	0	The river is just 1.5 kms away and in the monsoon water comes up to the village. There is no GL within the village, all of it is titled. There is a hillock nearby, but titles to 5 acres were made 15 years ago. Therefore, no land available for cultivation. No one is willing to give private land for rehabilitation.	Concocted and unreal figures
8	Kayasth Khedi	GL 36.00 Kayasth Khedi PL 0.00 <u>Total 36.00</u>	--	--	0	No land available	Unreal figures
9	Malgaon	GL 23.00 PL 0.00 <u>Total 23.00</u>	GL 0.00 PL 12.023 <u>Total 12.023</u>	GL 0.00 PL 12.023 <u>Total 12.023</u>	0	Entire village in submergence. There are hillocks near the village, but water reaches near them in the monsoon. No land available for cultivation	Concocted figures
10	Nahar Khedi	GL 21.00 Nahar Khedi PL 0.00 <u>Total 21.00</u>	GL 0.00 PL 11.00 <u>Total 11.00</u>	GL 0.00 PL 11.00 <u>Total 11.00</u>	0	In the monsoon, the village is surrounded by the flood water of two streams. There is no cultivable land available for rehabilitation nor is anybody prepared to give PL.	False and baseless claims
	BARWAH TEHSIL						
11	Nagava	GL 35.00 Nagava GL 15.00 Khedi PL 0.00 <u>Total 50.00</u>	GL 0.00 PL 37.868 <u>Total 37.868</u>	GL 0.00 PL 37.868 <u>Total 37.868</u>	0	There is yellow soil on the river banks. Because of its geography, water fills in it during the monsoon. No one is prepared to give PL. Hence no land available.	Baseless and imaginary figures
12	Mardana	GL 47.00 Mardana GL 4.00 Bakawa PL 0.00 <u>Total 51.00</u>	GL 0.00 PL 47.00 <u>Total 47.00</u>	GL 0.00 PL 47.00 <u>Total 47.00</u>	0	Govt. land is in submergence. There are 16 acres of stony land near the village which is uncultivable. Therefore no land available for rehabilitation	Imaginary and False claims
13	Bakawa	GL 40.00 Bakawa PL 0.00 <u>Total 40.00</u>	GL 0.00 PL 29.672 <u>Total 29.672</u>	GL 0.00 PL 29.672 <u>Total 29.672</u>	0	No one is prepared to give PL in Bakawa and there is no cultivable GL.	Imaginary and baseless claims
14	Khedi	GL 26.00 Khedi PL 0.00 <u>Total 26.00</u>	GL 0.00 PL 44.355 <u>Total 44.355</u>	GL 0.00 PL 44.355 <u>Total 44.355</u>	0	No GL for rehabilitation available in Khedi. No one is prepared to give PL.	False and imaginary figures
15	Panchnala	GL 24.00 Panchnala PL 0.00 <u>Total 24.00</u>	--	--	0	GL for cultivation or rehabilitation unavailable	Imaginary and baseless claims
16	Umedi	GL 21.00 Umedi PL 0.00 <u>Total 21.00</u>	--	--	0	No additional land available. People from Panchnala and Umedi live in Kakria	Concocted figures
17	Kakariya	GL 42.00 Kakariya PL 0.00	GL 0.00 PL 30.00	GL 0.00 PL 44.355	0	GL at river banks comes in submergence. No one is prepared to give PL	Imaginary and

		<u>Total 42.00</u>	<u>Total 30.00</u>	<u>Total 44.355</u>			concocted figures
18	Jai Kheda	GL 11.00 Jai Kheda PL 0.00 <u>Total 11.00</u>	GL 2.00 PL 0.00 <u>Total 2.00</u>	GL 2.00 PL 0.00 <u>Total 2.00</u>	0	No cultivable land available for rehabilitation	Concocted and imaginary figures
19	Neemsar	GL 20.00 Neemsar PL 0.00 <u>Total 20.00</u>	--	--	0	No cultivable GL available in village	Imaginary and baseless figures
20	Peetnagar	GL 99.00 Peetnagar PL 0.00 <u>Total 99.00</u>	GL 0.00 PL 19.00 <u>Total 19.00</u>	GL 0.00 PL 19.00 <u>Total 19.00</u>	0	No cultivable GL and no one has made any commitment to give PL.	False and baseless claims
21	Toksar	GL 39.00 Toksar PL 0.00 <u>Total 39.00</u>	GL 0.00 PL 2.00 <u>Total 2.00</u>	GL 0.00 PL 2.00 <u>Total 2.00</u>	0	GL near village is in submergence. No one prepared to give his / her PL.	Concocted and imaginary figures
22	Dhanpaliya	GL 4.00 Dhanpaliya PL 0.00 <u>Total 4.00</u>	--	--	0		Imaginary and baseless figures
23	Ali Bujurg	GL 42.00 Ali Bujurg PL 0.00 <u>Total 42.00</u>	GL 0.00 PL 4.00 <u>Total 4.00</u>	GL 0.00 PL 4.00 <u>Total 4.00</u>	0	Out of 42 ha, there is no land which does not come in submergence. No one prepared to give PL.	False and baseless figures
	<b>KHANDWA TEHSIL</b>						
24	Mortakka	GL 0.00 PL 0.00 <u>Total 0.00</u>	GL 2.00 PL 0.00 <u>Total 0.00</u>	GL 2.00 PL 0.00 <u>Total 0.00</u>	0	GL is encroached by 10-12 families Unavailable for rehabilitation	False and imaginary claims

- \* Document 1 "Details of land requirement and availability ..." Certified by Dist. Collector, Khargone and the document on the basis of which environmental clearance from MoEF and technical clearances have been obtained
- \*\* Document 2 "Madhya Pradesh Electricity Board (MPEB) handout, January 1998 .. Maheshwar Hydroelectric Project : Rehabilitation and Resettlement"
- \*\*\* Document 3 "Necessity and justification of Maheshwar Hydroelectric Project " MPEB , May 1998 submitted to Task Force.

# Appendix - 4

Tehsil name	Village Name	VILL_ CODE	Prim SCH	Mid SCH	Hig SCH	MED_ INST	RANG MED_F	DRNK WAT	PNT FAC	MRKT FAC	COMM FAC	APP ROAD	DIST TOWN	POWER SUPL	POWER EDEA	POWER EAG	LAND FORES	AGRI LAND	WELL WO_EC	WELL W_EC	UNIRG LAND	CULT WASTE	AREA_ UN_CU	VILL STR	POPLN
Badwah	Mehatakhedi	150	1			2	1	1	2	2	2	0	4	1	1	1	1	0.00		40.10	28.11	31.83	74.57	0150	367
Badwah	Nandghat Krodhi	152	1			2	1	1	2	2	1	1	3	1	1	1	1	0.00			52.59	63.16	75.21	0152	1023
Badwah	Kapasthal	171	1			2	2	1	2	2	2	0	10	1	1	1	1	0.00		7.00	253.89	48.81	66.91	0171	179
Badwah	Sernaria	172	1			2	1	1	2	2	2	0	12	1	1	1	1	0.00		19.00	198.44	46.22	66.59	0172	914
Badwah	Kotghera	174	1			2	1	1	2	2	2	0	4	1	1	1	1	0.00		23.20	105.69	15.66	28.92	0174	466
Badwah	Susotaya	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00		4.42	80.07	9.99	6.10	0175	0
Badwah	Muralla	177	1			2	1	1	2	2	2	0	7	1	1	1	1	0.00		104.94	63.77	98.34	72.35	0177	956
Badwah	Beisar	178	1			2	1	1	2	2	2	0	5	1	1	1	1	0.00		40.49	90.29	25.48	54.46	0178	341
Badwah	Ramgarh	179	1			2	1	1	2	2	2	0	4	1	1	1	1	0.00		10.81	78.23	18.29	11.32	0179	269
Badwah	Dhanpaliya	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00			22.05	4.47	19.61	0180	0
Badwah	Ali buzurg	181	1			2	2	1	1	2	2	0	10	1	1	1	1	0.00		100.13	360.01	145.56	83.64	0181	659
Badwah	Neemsar	186	2	1		1	0	1	1	2	2	0	15	1	1	1	0	0.00		70.23	260.94	89.44	106.39	0186	1310
Badwah	Peel nagar	187	1			2	2	1	2	2	2	0	13	2	0	0	0	0.00		60.10	109.16	38.60	64.44	0187	1031
Badwah	Toksar	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00			63.43	0.00	7.09	0188	0
Badwah	Jaikheda	191	1			2	2	1	2	2	2	0	14	1	0	0	0	0.00		58.00	66.92	36.46	16.02	0191	619
Badwah	Janaya khedi	205	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00		158.52	192.65	29.35	18.98	0205	0
Badwah	Khodi	211	1			2	1	1	2	2	2	0	33	1	1	1	0	0.00		12.02	120.69	87.85	131.46	0211	167
Badwah	Rever	212	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00		9.52	60.10	69.26	48.59	0212	0
Badwah	Pachala	213	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00		11.88	49.80	34.62	74.43	0213	0
Badwah	ummatli	214	1			2	1	1	2	2	2	0	20	1	0	0	0	0.00		12.86	159.13	75.46	95.45	0214	723
Badwah	Kakariya	215	1	1		2	1	2	2	2	1	0	32	1	1	1	1	0.00		145.30	131.68	118.28	183.77	0215	2437
Badwah	Bakawar	216	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00		50.25	61.53	22.47	5.29	0216	0
Badwah	Sangvi	218	1			2	1	1	2	2	2	0	31	1	1	1	1	0.00		99.75	251.27	63.87	39.01	0218	798
Badwah	nagava	219	1	1		1	0	1	1	1	1	0	33	1	1	1	1	0.00		240.21	569.19	233.48	231.13	0219	2197
Badwah	Mardann	220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00		32.60	78.82	4.19	0.74	0220	0
Maheshwar	Jalud	65	1			2	1	1	2	2	2	0	4	1	1	1	1	0.00		67.82	184.75	41.46	237.37	0065	691
Maheshwar	Karodiya	110	0	0	0	2	1	1	2	2	1	0	12	1	1	1	1	0.00		93.77	26.50	5.07	16.16	0110	1264
Maheshwar	Kunda	116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00		80.60	109.40	28.96	8.25	0116	0
Maheshwar	Bhsunda	117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00		30.00	77.94	76.60	97.02	0117	0
Maheshwar	Sulgawn	118	1	1		2	1	1	2	2	1	0	11	1	1	1	1	0.00		20.38	131.95	101.55	253.79	0118	1953
Maheshwar	Lalpur	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00		15.00	88.05	21.43	60.48	0119	0
Maheshwar	Tigrilaw	122	1			2	1	1	2	2	1	1	15	1	1	1	1	0.00		5.00	102.15	36.52	7.36	0122	65
Maheshwar	Gogawan	123	1			2	1	1	2	2	2	0	17	1	1	1	1	0.00		50.00	63.95	33.86	57.22	0123	866
Maheshwar	Digar	124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00			48.88	62.58	39.35	0124	0
Maheshwar	Pathrad Khurd	125	3	1		1	0	1	1	2	1	1	18	1	1	1	1	0.00		21.00	163.19	123.91	76.04	0125	1896
Maheshwar	Pathrad Bujurga	128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00		10.00	112.90	109.30	83.86	0126	0
Maheshwar	Khedi	164	1	1		2	1	1	1	2	1	0	23	1	0	0	0	0.00		46.08	121.06	19.25	23.50	0164	976
Maheshwar	Bahagawan	173	1	1		2	3	1	2	2	2	0	22	1	1	1	1	0.00		86.90	181.52	168.41	124.57	0173	1462
Maheshwar	Chirakhan	174	1			2	1	1	2	2	2	0	20	1	1	1	1	0.00		30.30	73.46	54.54	38.56	0174	379
Maheshwar	Pandiyaghal	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00		10.70	64.16	52.67	8.01	0175	0
Maheshwar	Sejgoan	180	1	1		2	2	1	1	2	2	0	25	1	1	1	1	0.00		45.90	214.08	21.24	18.80	0180	1018
Maheshwar	Fatopura	182	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00		10.00	88.14	33.73	13.18	0182	0
Maheshwar	Pitamali	183	1			2	3	1	2	2	2	0	30	1	1	1	1	0.00		63.70	380.58	100.20	421.67	0183	1267
Maheshwar	Bhampura	200	1	1		1	0	1	1	2	2	1	16	1	1	1	1	0.00		89.11	187.49	35.06	43.78	0200	1218
Maheshwar	Kawadiya	201	1			2	1	1	2	2	2	0	17	1	1	1	1	0.00		3.51	58.19	14.65	82.39	0201	544
Maheshwar	Sitoka	202	1			2	1	1	2	2	2	0	17	1	1	1	1	0.00			97.83	6.46	90.03	0202	406
Maheshwar	Nimgul	203	0	0	0	2	1	1	2	2	2	0	14	1	1	1	1	0.00			71.66	25.35	204.21	0203	71
Maheshwar	Khejgoan	204	1	1		2	2	1	2	2	2	0	14	1	1	1	1	0.00		0.00	45.96	24.19	111.30	0204	362
Maheshwar	Dhurwatya	205	0	0	0	2	2	1	2	2	2	0	14	1	1	1	1	0.00		0.00	42.26	17.46	56.89	0205	7
Maheshwar	Gangat Khedi	206	1	0		2	3	1	2	2	2	0	12	1	1	1	1	0.00			102.84	39.60	134.73	0206	445

Tehsil name	Village Name	VILL_	Prim	Mid	Hij	MED_RANG	DRNK	PNT	MRKT	COMM	APP	DIST	POWER	POWER	POWER	LAND	AGRI	WELL	WELL	UNIRG	CULT	AREA_	VILL		
		CODE	SCH	SCH	SCH	INST	MED_F	WAT	FAC	FAC	FAC	ROAD	TOWN	SUPL	EDEA	EAG	FORES	LAND	WO_EC	W_EC	LAND	WASTE	UN_CU	STR	POPLN
Kasrawad	Lepa	176	1			2	3	1	2	2	2	0	11	1	1	1	0.00			30.00	207.39	192.56	130.95	0176	1034
Kasrawad	Lalpura	177	0	0	0	0	0	0	0	0	0	0		0	0	0			9.00	67.00	16.52	61.42	0177	0	
Kasrawad	Amlaiha	178	1	1		1	0	1	1	2	2	0	10	1	1	1	0.00		30.00	417.37	195.76	77.65	0178	1383	
Kasrawad	Naharkhedi	179	1			2	1	1	2	2	2	0	10	1	1	1	0.00		60.40	315.48	48.17	7.37	0179	521	
Kasrawad	Shivrampura	184	0	0	0	2	1	1	2	2	2	0	15	1	0	1	0.00		29.91	104.85	15.85	19.43	0184	7	
Kasrawad	Sasabarad	185	1			1	0	1	2	2	2	0	16	1	1	1	0.00		50.44	69.23	35.26	6.95	0185	436	
Kasrawad	Nandiya	187	0	0	0	0	0	0	0	0	0	0		0	0	0			25.04	150.99	31.42	6.41	0187	0	
Kasrawad	Tolyaon	189	1			2	1	1	2	2	2	0	24	1	1	1	0.00			131.31	89.84	85.93	0189	166	
Kasrawad	Bhatyan Bujurg	190	1	1		1	0	1	2	2	2	0	20	1	1	1	0.00		157.22	903.87	236.50	155.76	0190	1580	
Kasrawad	Kayat Khodi	191	0	0	0	0	0	0	0	0	0	0		0	0	0			12.10	141.27	33.49	36.93	0191	0	
Kasrawad	Malgaon	192	1			2	1	1	2	2	2	0	27	1	1	1	0.00		8.12	173.22	31.10	28.49	0192	277	
Barwanj	Morkhta	1	1			2	2	1	2	2	1	0	25	1	1	1	0.00		0.00	187.13	21.04	111.98	0001	1017	

RANG_PNT	N(1)	IF NOT AVAIL. THEN RANGE CODE
PO_FAC	N(1)	POST OFFICE
TO_FAC	N(1)	TELEGRAPH OFFICE
POST_TELE	N(1)	POST & TELEGRAPH OFFICE
PH_FAC	N(1)	TELEPHONE CONNECTION
MRKT_FAC	N(1)	MARKET FACILITY (A/NA)
RANG_MKT_F	N(1)	IF NOT AVAIL. THEN RANGE CODE
MRKT_DAY_1	N(1)	MARKET DAY IS MONDAY
MRKT_DAY_2	N(1)	MARKET DAY IS TUESDAY
MRKT_DAY_3	N(1)	MARKET DAY IS WEDNESDAY
MRKT_DAY_4	N(1)	MARKET DAY IS THURSDAY
MRKT_DAY_5	N(1)	MARKET DAY IS FRIDAY
MRKT_DAY_6	N(1)	MARKET DAY IS SATURDAY
MRKT_DAY_7	N(1)	MARKET DAY IS SUNDAY
MRKT_DAY_D	N(1)	MARKET IS DAILY
MRKT_DAY_F	N(1)	MARKET IS FORTNIGHTLY
MRKT_DAY_M	N(1)	MARKET IS MONTHLY
COMM_FAC	N(1)	COMMUNICATION FACILITY (A/NA)
RANG_COM_F	N(1)	IF NOT AVAIL. THEN RANGE CODE
BS_FAC	N(1)	BUS STOP
TX_TEMP_FA	N(1)	TAXI/TEMPO STAND
RS_FAC	N(1)	RAILWAY STATION
NW_FAC	N(1)	NAVIGABLE WATERWAYS
APP_PUC_RO	N(1)	APPROACH - PUCCA ROAD
APP_KCH_RO	N(1)	APPROACH - KACHCHA ROAD
APP_FOOTPA	N(1)	APPROACH - FOOTPATH
APP_NAVRIV	N(1)	APPROACH - NAVIGABLE RIVER
APP_NAVCAN	N(1)	APPROACH - NAVIGABLE CANAL
APP_NC	N(1)	APPROACH - NAVIGABLE WATERWAYS (OTHER THAN RIVER & CANAL)
LOC_TOWN	C(15)	NEAREST TOWN
DIST_FRM_T	N(3)	DISTANCE FROM TOWN
POWER_SIFL	N(1)	POWER SUPPLY (A/NA)
POWER_EDEA	N(1)	POWER FOR DOMESTIC PURPOSE
POWER_EAG	N(1)	POWER FOR AGRICULTURE
POWER_EO	N(1)	POWER FOR IND./COMM. PURPOSE
POWER_EA	N(1)	POWER FOR ALL PURPOSE
LAND_FORES	N(9.2)	FOREST
CANAL_GOV	N(9.2)	IRR. BY GOVT. CANAL
WELL_WO_EL	N(9.2)	IRR. BY WELL WITHOUT ELECT.
CANAL_PVT	N(9.2)	IRR. BY PRIVATE CANAL
WELL_W_ELE	N(9.2)	IRR. BY WELL WITH ELECT.
TW_WO_ELEC	N(9.2)	IRR. - TUBEWELL WITHOUT ELECT.
TW_W_ELECT	N(9.2)	IRR. - TUBEWELL WITH ELECT.
TANK_IRR	N(9.2)	IRRIGATED BY TANK
RIVER_IRR	N(9.2)	IRRIGATED BY RIVER
LAKE_IRR	N(9.2)	IRRIGATED BY LAKE
WF_IRR	N(9.2)	IRRIGATED BY WATERFAK
OTHER_IRR	N(9.2)	IRRIGATED BY OTHER SOURCES
TOT_IRR_AR	N(9.2)	TOTAL IRRIGATED AREA



UN_IRG_LAN	N(2.2)	UNIRRIGATED LAND
CULT_WASTE	N(2.2)	CULTURABLE WASTE
AREA_UN_CU	N(2.2)	NOT AVAIL. FOR CULTIVATION
HOUSEHOLD	N(5)	NUMBER OF HOUSEHOLDS
TOT_POPLN	N(6)	VILLAGE POPULATION

NOTES :

1. (A/NA) AVAILABLE OR NOT AVAILABLE.  
VALUE IS 1 FOR AVAILABLE AND  
2 FOR NOT AVAILABLE.
2. THE RANGE CODE VALUES ARE :  
1 FOR < 5 KMS.  
2 FOR 5-10 KMS.  
3 FOR > 10 KMS.
3. ITEM 4 MRGD\_IN\_TN CODES :  
1 FOR VILLAGE PARTLY MERGED IN TOWN  
2 FOR VILLAGE PARTLY TREATED AS OUTGROWTH  
9 FOR VILLAGE SUBMERGED IN DAMS ETC.
4. FIELD 5 (EDUCATIONAL INSTITUTIONS)  
FIELD 17 (MEDICAL INSTITUTIONS)  
FIELD 34 (DRINKING WATER FACILITIES)  
FIELD 48 (POST & TELEGRAPH FACILITIES)  
FIELD 54 (MARKET FACILITIES)  
FIELD 66 (COMMUNICATION FACILITIES)

1 WILL BE ENTERED IN THE ABOVE COLUMNS IF THESE FACILITIES ARE EXISTING IN A PARTICULAR VILLAGE. IN THE SUBSEQUENT COLUMNS ACTUAL NUMBER OF EDUCATIONAL/MEDICAL INSTITUTIONS AVAILABLE IN A VILLAGE WILL BE ENTERED. OR THE PRESENCE OF FACILITY WILL BE INDICATED BY ENTERING 1 IN THE SUBSEQUENT COLUMNS.

2 WILL BE ENTERED IN THE ABOVE COLUMNS IF THESE FACILITIES ARE NOT EXISTING IN A PARTICULAR VILLAGE. IN THE NEXT COLUMNS THE RANGE CODE WOULD BE ENTERED TO SHOW THE DIST-AT WHICH THE FACILITY IS AVAILABLE FROM THE VILLAGE. ALL THE SUBSEQUENT COLUMNS OF A FACILITY WILL REMAIN BLANK IN SUCH CASES.

DESCRIPTION OF RURAL CODE DIRECTORY				
-----				
1.	STCD	Character	2	State/UT Code
2.	CODE	Character	18	Location Code ###
3.	NAME	Character	30	Name of the Location
**Total**			51	

## Description of Location Code

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19 Digits : Total length of the Location Code

2 digits :	District Code
4 digits :	Tehsil Code
4 digits :	Block Code
4 digits :	Nyay Panchayat Code
4 digits :	Village Code

# VILLAGE DIRECTORY RECORD STRUCTURE

FIELD NAME	FIELD TYPE	DESCRIPTION
DIST_CODE	N(2)	DISTRICT CODE
THSIL_CODE	N(4)	TEHSIL/MANDAL/CIRCLE/ CD BLOCK/POLICE STATION
VILL_CODE	N(4)	VILLAGE CODE
MRGD_IN_TM	N(1)	VILLAGE STATUS
EDU_INST	N(1)	EDUCATIONAL INSTT. (A/NA)
RANG_EDU_F	N(1)	IF NOT AVAIL. THEN RANGE CODE
P_SCH	N(2)	PRIMARY SCHOOL
M_SCH	N(2)	MIDDLE SCHOOL
H_SCH	N(2)	HIGH SCHOOL
PU_COLL	N(2)	PU COLLEGE
GR_COLL	N(2)	GRADUATE COLLEGE
ADLT_LT_CN	N(2)	ADULT LITERACY CENTRE
IND_SCH	N(2)	INDUSTRIAL SCHOOL
TR_SCH	N(2)	TRAINING SCHOOL
OTH_SCH	N(2)	OTHER EDN INSTITUTIONS
MED_INST	N(1)	MEDICAL INSTITUTIONS (A/NA)
RANG_MED_F	N(1)	IF NOT AVAIL. THEN RANGE CODE
H_CNTR	N(2)	HOSPITAL
MCW_CNTR	N(2)	MAT. & CHILD WELFARE CENTRE
MH_CNTR	N(2)	MATERNITY HOMES
CWC_CNTR	N(2)	CHILD WELFARE CENTRE
PHC_CNTR	N(2)	PRIMARY HEALTH CENTRE
HC_CNTR	N(2)	HEALTH CENTRE
PHS_CNTR	N(2)	PRIMARY HEALTH SUB-CENTRE
DISP_CNTR	N(2)	DISPENSARY
FPC_CNTR	N(2)	FAMILY PLANNING CENTRE
TB_CNTR	N(2)	TUBERCULOSIS CLINIC
NH_CNTR	N(2)	NURSING HOME
CHW_CNTR	N(2)	COMMUNITY HEALTH WORKERS
RP_CNTR	N(2)	REGD. PRIVATE PRACTITIONER
SMP_CNTR	N(2)	SUBSI. MEDICAL PRACTITIONER
OTH_CNTR	N(2)	OTHER MEDICAL CENTRES
DRNK_WAT_F	N(1)	DRINKING WATER FACILITY (A/NA)
RANG_WAT_F	N(1)	IF NOT AVAIL. THEN RANGE CODE
TAP	N(1)	TAP WATER
WELL	N(1)	WELL WATER
TANK	N(1)	TANK WATER
TUBE_WELL	N(1)	TUBE WELL WATER
HAND_PUMP	N(1)	HAND PUMP WATER
RIVER_WATE	N(1)	RIVER WATER
FOUNTAIN	N(1)	FOUNTAIN
CANAL	N(1)	CANAL
LAKE	N(1)	LAKE
SPRING	N(1)	SPRING
NALA	N(1)	NALLAH
OTH_FAC	N(1)	OTHER DRINKING WATER SOURCES
FNT_FAC	N(1)	POST & TELE. FACILITY (A/NA)

Appendix 3 : Data on resettlement and rehabilitation process

Appendix 4 : Basic data on infrastructure; District Census Handbook - 1991

#### Appendix 5

#### Important Sites : Action needed to preserve archaeological wealth

##### **Mardana**

This old village was a mahal in Sarkar Bijagarh. There is a old fort in a dilapidated condition. The fort contains besides hathikhana, shrines dedicated to Mayuradwajeshvara and Huzur Shah Data Pir and a temple to Kaleshvara. This village was one of the stages on the route connecting Deccan with the north.

The village contains an old dharamshala, and a temple dedicated to Lakshmi Narayana, both constructed by Ahilyabai Holkar. To the west of the village is a masonry dam in Kalhut Nala 12 cubits high. Most of the temples and shrines both Hindu and Muhammadan were given grants from the State. It occupied an area of 1,550 hectares and according to the Census of 1961, has a population of 1,354 persons.

##### **Raver**

It is one of the Paleolithic sites, where Paleolithic tools and microliths are found along the Narmada.

Paleolithic tools belong to the Early stone Age and represent the first cultural phase of the pre-historic period. On Paleontological evidence, these tools are assigned a horizon near to the Middle Pleistocene. This was followed by the next cultural phase in the Narmada basin, what may be termed as the Second Stone Age or Middle Stone Age. This phase of culture was also considerably old and fell within the limits of the Pleistocene.

On the banks of the river stands a chattri (cenotaph, built of variegated sandstone) of Peshwa Bajirao I, who died here in 1740. It is enclosed in a dharmashala of strong masonry and two temples dedicated, respectively, to Nilkantheshvara Mahadev and Rameshvara. The village covers an area of 402 hectares and according to the Census of 1961, has a population of 74 persons only.

MPEB had asked for Rs. 117 lakhs from the Skumars for relocating the cenotaph of Peshwa Bajirao I, to which they have yet to receive a reply. The affected sites contain 22 temples and 2 tombs about which the MPEB has not given much information. Keeping in mind the religious and historical importance of the entire region since the earlier centuries, there is a real possibility that one of the affected sites could very well contain the remains of a past civilization. Ancient tools, pottery and other relics have been discovered in Maheshwar, Navdatoli and Raverkhedi. The list is not conclusive, since most of the region is largely unexplored. With the construction of the dam the potential sites will be lost forever.

The entire river basin is archaeologically important. Tools, pottery and other fragments from the past have been found in various sites along the banks of the river. Some of these discoveries date to the Stone Age and others to the Pre-historic and the Proto-historic, when a thriving culture used to exist. Many varieties of grains have been discovered at the sites, masur, moong, peas and tivda which is very significant. The people who ate so many vegetarian dishes must have cultivated these and hence, could be stated to have attained a certain standard of civilization. (Madhya Pradesh District Gazetteer, 1970, West Nimad).



MR. BEHAR, ADVISOR TO CHIEF MINISTER MP  
= PRESIDENT OF TASK FORCE

OCT 98

## TASK FORCE TO STUDY NARMADA VALLEY DEVELOPMENT OPTIONS

### A DRAFT REPORT ON THE CHAPTER OF MAHESHWAR HYDEL POWER PROJECT

The Maheshwar Hydro-Electric Project has been an important point of discussion right through the deliberation of the Task Force. However two sessions were devoted specifically to this project so as to understand the basic stand taken by the MPEB and the arguments put forward by the NBA and other subject experts. The project was cleared by the CEA in 1996 with Rs. 812.09 crores, plus US\$ 213.29 million i.e. Rs. 1707 crores as the total cost of the project. In the following section we present the gist of the deliberation in the following order.

1. The position of the MPEB in support of the Maheshwar Project, represented by Shri Mandloi, Member, Civil MPEB, Govt. MP.
2. The argument offered against the continuation of the project, represented by Shri Girish Sant, Shri Alok Agrawal, Shri Paranjpye, Shri K. R. Datey and other.
3. The common points of agreement and of divergence.
4. The conclusions and recommendations.

#### 1. The position of the MPEB in support of the Maheshwar Hydel Project (400MW, i.e. 716 Million units in 90% years dependability)

1.1 Electricity, it is asserted, is a key input in the socio-economic development of the country, and at the end of the 8th Plan (March 1997) the country was facing a shortage of about 11.5% (base generation) and about 24% (peaking power). By the end of VIII Five-Year Plan the total installed capacity was 84912 MW, implying a shortage of 14185 MW. The 9th 5-year Plan of the Govt. of India therefore envisage an addition of 8449 MW each year.

1.2 The need for electricity in MP is as important as the national need, and that makes it necessary to generate as much power as possible in the shortest period of time. Even though MP was an energy surplus state 10 year ago, and actually exported electricity to neighbouring states this position has been reversed today. The installed capacity is 3814 MW, while the actual energy available is only 2533 MW due to a plant load factor (PLF) of 66.4%. Keeping in view the peak demand of 5150 MW, the current shortage is to the extend of 2617 MW.

1.3 The share of hydro power of the state as a proportion of the total power has fallen from 34% (During the 6th plan) to 25.5% at the end of the 8th Plan. This is an undesirable trend, because the Nation policy requires a ratio of 40/60 (At present it is 28/72) for achieving the correct (optimal) mix between thermal and hydro power generation to maintain the system efficiency.

1.4 To bridge the gap between demand and supply in general and to increase the share of hydro power in particular the government adopted the policy of "private participation", and a total of 16 Power Purchase Agreement (PPAs) have been signed between 1991 to 1997 (together accounting for 6500 MW of power). In spite of this, except for the SMHEP (Shri Maheshwar Hydro Power Project) no other company has been able to launch the projects on ground.

1.5 In view of the extreme shortage of Plan funds for completing the ongoing projects and in view of the lack of enthusiasm on the part of private companies to invest in the power sector, it has become absolutely necessary to go ahead with the SMHEP.

1.6 Within the state of MP the western parts are short of natural resources, while the eastern parts are richly endowed. However, the creation of the State of Chhattisgarh is likely to be a reality very soon, after which the plight of western MP will be even more serious in favour of energy generation.

1.7 Further, the Master Plan as indicated by the NVDA requires that conservation storages must be provided as high up in the basin as possible, for enabling the reported use of water for

power generation. This would enable the generation of hydro power at the least cost. This the MPEB believes that the entire hydro power potential as envisaged in the Master Plan must be harnessed as early as possible, by utilizing the 18.5 MAF of water allocated to MP by the Narmada Water Dispute Tribunal (NWDT).

1.8 By 1998, only six dams namely Tawa, Bama, Sukta, Kolar, Matiyari & Bargi have been completed. In addition, Indira Sagar, Omkareshwar, Maheshwar, Man and Jabat are in progress. However due to a paucity of funds the work on the ongoing projects has not gathered momentum. Therefore, in tune with the Central and State policy, the Maheshwar Project has been assigned to a private party.

1.9 The SMHEP will help in utilizing the allocated water, and also in reaping the maximum benefits, minimum submergence & minimum displacement of households.

1.9.1 The major Advantages of Hydel Power (especially SMHEP) Hydro Power is non-polluting, environmentally benign and it is technologically viable. In other words the ISP/ SMHEP and Omkareshwar, it is claimed offers the least cost expansion system.

- a) Hydro power plants have a life 60 years and it is free from price escalation because there is no material input cost involved.
- b) SMHEP will increase the load carrying capacity of the grid, avoids backing thermal plant dummy off peak hours, thereby improving the PLF of thermal plants.
- c) SMHEP will have spinning reserves, it is quick starting and responds quickly to load demand. Consequently it offers the cheapest rate among all available source of power. It also requires negligible amounts (0.5%) of auxiliary power.
- d) SMHEP will lead to — which is relatively very small, and if developed well it will offer a good tourist spot. Being a run off river project it requires relatively less impounding and that too mostly the confined to the banks. It will submerge only 13 villages completely and 873 Ha. of cultivated agricultural lands. There is no loss of forest under submergence.



- e) During the Rabi season the overall demand rise, thereby leading a fall in voltage from 400 KV. to 320 KV, causing fluctuation, oscillations and damage to equipment of consumers. The additional power from Maheshwar will reduce these losses. Further the transmission losses (from eastern MP to Western MP) amounting to 24 MW will also be saved, thereby impounding the system efficiency.
- f) It is expected that the fish production will rise from 20 tons per year to 220 tons per year.

2. The arguments offered against the continuation of the SMHEP by the NBA and others. There are broadly divided into

- a) the Techno-economic Arguments and
- b) The Social -cultural and Ethical Arguments.

2.1 The Techno-economic Arguments

It was claimed by the opponents of the project that the levelised tariff of energy generated at SMHEP is likely to be Rs. 5.24 per unit at 2001-2002 price levels, and that this is far higher than anticipated by the authorities. The argument is that the total cost of the project will be at least Rs. 1707 crores, and if we assume annual discount rate of 12% (It is customary to take 12% as the rate of discount for calculating the financial rate of return) then it would be difficult to keep the levelised tariff below Rs. 5.24 per unit.

2.2 Further, if the cost of non-peak energy is Rs. 1.75 per unit, then the cost of peaking power from Maheshwar in year 2002 works out to be more than Rs 7.25 per unit. Since the primary objective of the project is peaking power, the rate appears to be higher than comparable alternatives. In addition 67% of the peaking energy will be generated during the Monsoon months, i.e. the period when peaking requirements are not high.

2.3 It is therefore suggested that other alternatives, which may have economic & social cost should be considered.

- a) Optimum use of oil based power plants.
- MPEB has planned (and signed PPAs) with several IPPs to put up base load power stations running on oil. Govt. of

India has approved oil linkage for 1,300 MW base-load power stations (above a PLF of 65%) [These include 240 MW FO based DG sets]. Use of these plants (capable of peaking duty) for base load may be necessary in the initial years but has no place in the long range planning. Use of precious oil in place of coal is also not economical and desirable. In the next 5 to 7 years, these plants should be shifted to peaking operation. Optimal use of these plants (for peaking) and use of saved oil to support additional peaking plants can improve the peak : base ratio, without increased oil usage. The 240 MW DG sets (FO based) can be shifted to peaking duty, and 400 MW DG sets (FO based) can be added, also for peaking duty, without increasing the oil consumption. This has two advantages:

- a) Instead of addition of 240 MW base-load and 400 MW peaking plant (SMHPP) this plan will add 640 MW peaking stations. This will improve the Base : Peak ratio. The peaking energy availability will increase significantly.
- b) The oil based plants have an year-round availability (even for off-peak generation) where as SMHPP's availability is limited to at most two hours a day in the post-monsoon period.

Such restructuring of oil based projects will improve base : peak ratio and substantially improve capability of meeting even the base load short falls. This would be achieved at a lower or same cost as of SMHPP. In addition, the alternative can also avoid submergence and popular opposition.

#### 2.4 Transition to biomass based power (along with co-generation):

DG sets running on High Speed Diesel (HSD) are costly due to high cost of fuel. The initial investment is low and if oil is replaced by wood (gasification) then they become quite competitive when compared to the cost of peaking energy from SMHPP. The first year payments for SMHP project (~ Rs 360 Crore) would be sufficient to buy 300 MW DG sets (HSD) [The investment cost of DG sets (fuelled by HSD is about Rs. 1.2 Cr/MW]

The possibility of being able to add wood-gasifier is the real advantage in this option. Wood gasifier will reduce oil consumption and the cost of power. After addition of wood gasifier a large part of running costs would be local payments for wood (~ Rs 21 lakh / MW p.a.). This will provide a substantial boost to the local rural economy. For 300 MW, local payments would be Rs 60 to 70 crore p.a. Biomass for gasifier can be wood or agricultural waste. In case of wood plantations, the land requirement will be about 200 Ha/MW. This land is the "catchment area" of the project, as this "un-submerged" land and the energy plantation on it will offer many other substantial advantages for local ecology and economy. As described by K R Datey, this option is eminently feasible without having the need to acquire the lands.

The wood-gasifier and associated system (inclusive of DG set) cost Rs 1.8 Cr/MW. Gasifier will reduce diesel consumption by over 70%, while consuming 0.9 to 1 Kg wood/kWh. The levelised cost of power from DG-Gasifier plants will be one third less than peak energy from SMHPP. In fact, the gasifier based power turns out to be cheaper than even the cost of all energy (cost averaged over peak and non-peak energy) of SMHPP.

2.5 Reducing peak power demand [thorough efficiency improvements Demand Supply. Management (DSM) scheme and load management):

If DSM and decentralized options are integrated in planning they can substantially reduce our dependence on large centralized plants. And can avoid mass-scale displacement as well as environmental costs.

Single Point Connections The 2 million single point connections is a great source of concern for the power planners. On the one hand, consumption of these users have large share of lighting load and on the other hand, there is a concern that due to un-metered nature they tend to run other appliances which amount to theft of power. Under a DSM scheme, the MPEB can give out good quality CFLs to these households. These lamps, along with choRê (ballast) and a decorative lamp protector can be fitted at the place of inefficient incandescent lamps. This will save 40 to 60 Watt per household. After considering the periodic costs for lamp and ballast replacement, inflation rate of 8% and cost of

implementation; the levelised cost of energy saved works out to only Rs 1.8/kWh. This cost needs to be compared with the cost of peaking energy from SMHPP (i.e. levelised cost of Rs 5/U in 1997-98 prices). The total saving from existing 2 million connections would be at least 100 MW. The saving from retrofitting new connections will be additional.

Further, these consumers can be given an option to either opt for metered supply or to accept a small electronic load controller that will limit their load to one or two such lamps. This can help MPEB reduce the theft of power. Such load controller would cost about Rs 100 to Rs 150 if bought in bulk. The cost of reduced peak due to reduced theft will be far too less than even the CFLs. There is no easy way to estimate the possible benefit of this option. But generally 50 watt saving per house can be assumed. This implies an additional saving of 100 MW in peak load.

A good DSM scheme has the potential of saving 200 MW in just these two areas.

There are several DSM and load management measures in other sectors. These have not been elaborated here.

## 2.6 Use of existing dams for pumped storage schemes.

It is possible to generate much more electricity from existing dams and pumped storage schemes without major added submergence. Such schemes will also be more economical than the SMHPP. For example, additional 180 MW pumped storage can be developed on the existing Bargi Dam, by creating a very small reservoir in the down-stream river bed. For a peaking duty of 3 hrs./day [The peaking duty of SMHPP is less than two hours a day in the post Monsoon period], an additional small capacity of coal thermal plant of 60 MW can supply the pumping energy need (during off peak hours). Other suitable sites for pumped storage also exist. Without considering such sites, this option can give nearly 60 % peaking power as that of SMHPP, without major problems of submergence and R&R (Rehabilitation and Resettlement). This will also reduce the spills from Bargi during the monsoon.

In the nut shell, it can be said that the cost of peak power from SMHPP is not low and many alternatives are feasible, that can give similar peak power benefit at much less financial cost. Further these alternatives are beneficial from the social aspect as they do not involve large scale submergence and associated social trauma, rather options such as Gasifier will provide much needed stimulus to local rural economy and create employment. Immediate steps should be taken to utilize our scarce financial and human resources to exploit potential of such cost-effective and socially desirable options. Actions should be taken to restructure the present oil based projects, implement Gasifier, DSM projects as well as the pumped storage scheme described above. A combination of these low-cost options offer far more potential than the SMHPP.

## 2.7 The First Component: Switching to ROR (Run-off-River) for the river valley projects

The present Narmada Valley Development plan provides for a hydro capacity of 2100 MW, most of which is concentrated in the four projects of Omkareshwar, Maheshwar, Narmada Sagar & Bargi and none of them are planned on the basis of ROR operation. The first important modification which needs to be considered is to change over to an ROR operation for these plants with immediate effect. As we have already noted, the role of hydro power has changed over these years and the role of hydro is mainly in helping meet peak demand. From this point of view, an operation of between 4 and 6 hrs at peak load is to be expected from these plants, i.e., between 1500 and 2200 hrs/yr. Our previous working on the SSP (Sardar Sarovar Project) suggests that this level of operation is possible with ROR operation. (The simulation carried out over a 42 yr period suggested 2200 hrs/yr operation at SSP.) Thus, in terms of generation, ROR will match present levels of generation without compromising on peak load capacity.

The switch over to ROR will, on the other hand result in the following benefits:

- 1) The requirement of storage behind the dam will be substantially reduced, since only a regulatory capacity will be needed;
- 2) In the post monsoon period, a capacity equivalent only to diurnal capacity required for peak load operation will be required; and as a result of the above,
- 3) The total submergence area will be reduced significantly and permanent submergence will decrease and period of submergence will be restricted to the monsoon period only for most of the seasonally submerged area.

## **2.8 The Second Component: Dispersed Small and Medium Hydro Cascade for the Entire Valley.**

The second important investigation to be called before proceeding with the major hydro projects planned, is to investigate the potential of dispersed small and medium hydro power plants based on ROR throughout the entire valley. The very first step in this direction would be to add an ROR hydro power component to all existing small and medium irrigation projects in the river valley. This itself is likely to generate a significant amount of energy and add significant peak load capacity.

Ideally, these and the projects planned on the Narmada itself should be seen as a cascade in which individual projects make use only marginally larger than river bed storage (i.e., between the river bed level and the flood plain level) behind the dam.

If we assume only 30% of the rainfall from the Narmada Catchment as being utilized for power generation; with only a 20 m fall at Bargi and utilizing only half of the fall available up to SSP crest, utilized over a period of 60 days, we get an installation of 2512 MW (for calculations see Appendix 1) on the main river alone. If we are to provide for peak load benefit and a ratio of 1.5 in that respect, the potential installation is 3768 MW. This still does not take into account the fall on the tributaries, and even assuming

a fall of only 20 m in the tributaries, we have potential for another 1000 MW. The point is that there is prima facie evidence that ROR based small and medium hydro projects cascade in the major schemes on the Narmada.

## 2.9 Set up a committee to estimate ROR based small and medium hydro capacity for the Valley.

We would therefore suggest that the government may immediately set up a task force and fully equip it to study the potential of ROR based hydro project potential in the Narmada Valley and identify likely sites and estimate costs for the same. The task force will need to be guided by a strong team of experts well seized of the issue and having the right approach to it. We suggest that the task force be guided by Shri S. Sambamurthy, Shri K. R. Daley and Shri Madhavan. Shri Sambamurthy is former Chairman, Central Electricity Authority (CEA), Shri Daley needs no introduction to this gathering and Shri Madhavan has been member, Design, Central Water Commission dealing specifically with hydro projects. All of them are well seized of the issue of ROR based hydro project operation and have a long experience in all respects of hydro projects planning and implementation.

## 2.10 Third Component: Hybrid solar biomass fossil fuel thermal generation systems

By themselves the two steps described earlier would provide for a well dispersed capacity of at least around 3000 MW providing for a new power generation of between 1500 to 2200 hrs/yr and a pumped storage peak load facility of 300 MW. This in itself is an important benefit, but its potential would be fully realised only when it is integrated into a hybrid solar-biofuel-fossil fuel hybrid thermal generation system.

The system may be described as follows. The system consists of a set of well dispersed thermal generation plants in the size range of between 2 and 10 MW capacity. These plants function as base load plants for the system. They are hybrid plants equipped to run on three kinds of fuel: coal or other fossil fuels, biomass and solar. They are estimated to run for around 3000

hrs/yr on coal or other fossil fuel, 2000 hrs/yr on solar heat and 2000 hrs/yr on biomass fuel, thus making for an operation of 7000 hrs/yr for a load factor of 80%.

Estimated costs for this kind of a system are given below in Table 1 and basis for these costs and estimates are discussed in the next section.

Table 1: Estimated costs of proposed hybrid system.

Source	Capital Cost Rs/kW	Fixed Cost Rs/yr	Fixed Cost Rs/yr	Fuel Cost Rs/yr	Total Hours of Operation hrs/yr
Hydro	25,000	3,500	0	3,500	1,500
Biomass	7,000	1,000	2,000	3,000	2,000
Solar Thermal	30,000	4,200	0	4,200	2,000
Steam Turbine plant	35,000	7,000	3,000	10,000	3,000
Total	97,000	15,700	5,000	20,700	8,500

Cost of power =  $20,700/8,500$  Rs/kWh = 2.44 kWh

#### Estimation of Hybrid Power from the Narmada Cascade.

(Appendix 1)

For purpose of estimation the catchment of the Narmada within MP is taken to be 8.5 MHa (a somewhat lower figure, but again, consistent with our upper bound approach), of which 1.5 MHa represent the catchment above Bargi. We are making minimalist assumptions since the objective is to arrive at an order of magnitude estimate alone. The cascade is assumed to be made up of structure dealing with about 20 m fall and it is assumed that the first fall is at Bargi and only half of the fall between Bargi river bed height and SSP crest height is utilized for power generation. Any relaxation of these assumptions would result in a higher power generation potential than estimated.

The river bed height at Bargi is 367 m SSP crest is 140 m giving us a fall of 227 m of which according to assumption 113.5 m would be utilizable. It is assumed that this is done in seven 16 m



stages. Due to the peculiarity of the shape of the Narmada basin, we may assume that the catchment between them (It would generally vary as the difference of squares), and so we assume that at every stage there is an addition of catchment of 1 MHa at each stage and corresponding flow.

It is assumed that the average annual rain fall 1000 mm for the catchment and 30% of it is utilized for power generation. Turbine and generator efficiency is assumed to be 70%. The period over which the flow is to be utilized is taken as 1500 hrs, corresponding to a little over 60 days. This determines the capacity, through actual hrs of energy generation attributable to utilized flow can be estimated to add up to 25% to this basic figure. On this basis the power available from the flow from a catchment of 1 MHa for a fall 1 m may be estimated as follows:

$$0.3 \times 1000 \text{ mm} \times 10^6 \text{ ha} \times 10 \text{ m}^3/\text{ha} \times T/\text{m}^3 \times 1 \text{ m} \times 1 \text{ kWh}/360 \\ T. \text{ m} \times 0.7/1500 \text{ hrs} = 3889 \text{ kW} = 3.889 \text{ MW}$$

Therefore, total power available

$$= 3.889 (1.5 \times 132 + 1 \times 112 + 1 \times 96 + 1 \times 64 + 1 \times 48 + 1 \times \\ 32 + 1 \times 16) \\ = 3.889 \times 646 \\ = 2512 \text{ mw}$$

## 2.11 Sub-mergence and displacement

As per the report of M P E B the reservoir of Maheshwar Dam will submerge 5697 Ha. In which private land is 1060 ha. The project will fully affect 13 villages and partially affect 9 villages thereby affecting 2264 families. But the experience of Bargi Project reveals that the submergence anticipated by the Government is an underestimate and that the reality will be far more destructive. In all 61 villages and 4000 families will be affected by Maheshwar Project. The Rehabilitation Policy of the government provides for land for land and adequate rehabilitation and resettlement of the project affected families. But until now no family has received land for land and only cash compensation has been provided.

Besides human misery due to submergence and displacement, the project will lead to acute environmental problems. It will also submerge archaeological sites and will have post-impoundment prejudicial impact on health of the inhabitants on the periphery of the reservoir.

### 3.0 Common points of agreement and of divergence

The relative relevance and validity of the concepts of *energy* and *electricity* engaged the attention of the task force. It was agreed that using the narrow concept of electricity excludes the other forms and sources of energy. It was therefore agreed that energy is a more useful and comprehensive concept for the purpose of planning. The concept of electricity however was considered to be more relevant and useful for the limited purpose of looking at the desirability of continuance or otherwise of Maheshwar Project.

The Task Force devoted a considerable amount of time in discussing various non-conventional source of energy. We are happy to report that the task force was quite excited about many non-conventional sources of energy that have not been tried in the State in the scale it is feasible. That is why elsewhere we have recommended that the MPEB should have Independent and strong wing under the leadership of a very senior person, may be a Vice Chairman, or a member to exclusively devote itself to exploring, planning and implementing projects relating to non-conventional sources of energy. The Task Force is convinced that there is considerable scope in this area, definite that a substantial work can be done in the this area given the necessary commitment.

It was also generally agreed that even if all feasible non-conventional sources are harnessed, it is not possible to meet the entire need of the State at the present level of proven technology. All members agreed that non-conventional energy sources should be given priority, but while some felt that this priority is to be in respect of attention and investment, some others felt that it should also be temporal, i.e., in the first stage exclusive attention be paid only to non-conventional sources and only when it becomes necessary hydel and other projects of conventional kind should be taken up. The general consensus was, that looking at the

gestation period of conventional projects as also the growing chasm between demand and generation, it is necessary that conventional and non-conventional projects are taken simultaneously.

The Task force recommends that much greater emphasis is required to be given to conservation of power and preventing loss and wastage of power.

It was also generally agreed that wide-spread educational effort has to be carried out on a massive scale to encourage the consumers to use energy-saving lamps and other appliances.

A major disagreement in the task force was on the cost benefit analysis of the Maheshwar Project has been undertaken. Members from the NBA and some experts felt that cost would be much higher on account of the following factors :

1. The number of families likely to be adversely affected is much higher than shown in the project, partly because of unsatisfactory survey at the time of preparation of the project and partly because of the rise in number of families since the survey, particularly when adult children are treated as separate families as per the rehabilitation policy.
2. Submergence will lead to loss of resource-base like quarries of minor minerals that have not been taken into account, while calculating the cost.
3. The environmental impact has also not been properly calculated and computed.
4. Submergence of archeological sites has also not been taken into account.
5. The dollar-rupee exchange ratio has been taken at an unrealistic level without taking into account the steep rate at which the ratio is changing adversely to the rupee.

6. The cost of the ideal package of R & R accepted by the government has not been included.

There was a considerable debate on this issue. The need to workout afresh the cost benefit in the framework presented in an earlier chapter is considered desirable and is recommended by the Task Force, as an exercise to be undertaken by the MPEB.

Some members particularly those belonging to NBA emphasised and presented some evidence to show that the conditions imposed by the Ministry of Environment and Forest while clearing the project have not been fulfilled; and in fact some of them have been violated. The MPEB disputed such a claim. This is a matter that requires verification on the spot and was not within the scope of the Task Force. In any case there was no disagreement on the necessity of the conditions being fulfilled both in letter and spirit. We therefore strongly recommend that the Government of M.P. should evolve an effective mechanism to monitor and ensure compliance with the conditions of the project and it should not be left with the executing agency to report a formal compliance.

The present state of rehabilitation and resettlement was another major issue of controversy. Understandably, those who are working at the grass-roots in the field were very agitated on the tardy implementation of the rehabilitation programme. The MPEB disputed many of the allegations made by the grass-root workers in regard to the violation of rehabilitation policy. The Task Force therefore appointed a sub-committee to verify some of the cases on the spot in which both the MPEB and the NBA representatives were members. Unfortunately, for various reasons the representatives of the MPEB were not present during the spot verification as a result of which we could not obtain jointly-agreed status report.

The Controversy on R&R had many dimensions. One was on the recent decision of the government after a visit to the Narmada Valley area by the Deputy Chief Minister Mr Subhash Yadav to modify, and *liberalise* the Re-habilitation policy. It was argued on behalf of the members belonging to the NBA that this was a dilution of the existing policy rather than liberalisation. Their

insistence was that the policy adopted for Sardar Sarovar must also apply to Maheshwar and other projects in the valley. Any change would imply adopting double standards - one for Sardar Sarovar when it is a matter of demanding strict adherence from the government of Gujarat and a different one in respect of other projects in Madhya Pradesh.

The task force was of the view that we must avoid any possible allegations of following different norms and standards and should strictly adhere to the same conditions for Maheshwar and other projects as we demand of Gujarat government in respect of Sardar Sarovar.

The four major components of the rehabilitation policy generally agreed to, by both Government of M.P. and the NBA in the context of Sardar Sarovar are :-

1. Giving land for land to the effected families including to the landless;
2. Settling the village as a community rather than in a disbursed manner;
3. Availability of a complete rehabilitation plan well in advance of taking up the construction work.
4. Satisfactory re-settlement to be complete before 31st of December in the year preceeding the year in which the village/area is likely to be submerged.

It was the stand of many members that there is no comprehensive plan of R & R prepared for the Maheshwar Project. The representatives of the MPEB also agreed that while there is some plan, it is not a comprehensive plan for rehabilitation of all the affected families as per the rehabilitation policy.

A doubt was also raised regarding the availability of adequate land to follow the principle of land for land. The task force was informed of some land identified for the affected families but no assurance for availability of adequate land could be given to the task force. Hence we came to the conclusion that at present adequate land area has not been identified to enable allotment to all affected families.

The policy of the government to give cash compensation to affected families to buy land on their own where ever they can find was also seriously criticised by some members. Others felt that this is a reasonable approach so long as genuinely willing persons are given cost compensation. It was alleged that lower level functionaries are pressurising affected families to take cash compensation. As stated elsewhere we could not arrive at a final conclusion in this regard in the absence of joint sub-committee visit. In any case the task force is of the view that cash compensation should not be given to anybody excepting those who are really willing for ascertaining which there should be a dependable mechanism. In this context a circular issued by the government in 1996 was recalled in which conditions for paying cash compensation were indicated and were to be strictly followed. It was alleged that this circular of the government is being violated.

#### 4.0 Conclusions and Recommendations

While the Task Force is not in a position to express a final opinion about ground realities on to which and different versions were presented, it has no hesitation in recommending that rehabilitation policy should be strictly followed to which will imply preparation of a comprehensive plan also clearly indicating the feasibility of R&R in accordance with the policy, particularly the availability of adequate land for allotment to the oustees for resettlement of village as a community.

While the present status of R & R may have generated controversy and debate, there was no disagreement on the view shared fully by all the members of the task force that there is a need to adopt a much greater humane approach to R & R activities. This has particularly become important in view of a private enterprise executing the project.

The task force, therefore, recommends that a high- power committee should be constituted to ensure proper rehabilitation and resettlement. This committee should be composed of representatives of the government, the NVDA, the MPEB and sufficient member of representatives of the families affected by the

project. It may also be clarified here that such representatives should not be nominated by the government but should be nominated or elected by affected families. The task force hopes that the representatives of the NBA who made valuable contributions to the deliberation of the task force and who have been working with the affected families will be associated with and play a significant role in ensuring model R & R that can be emulated in other projects that would be taken in future. The composition, the charter, the powers and functions of this committee should be carefully worked out to make it a really effective planning and implementing body so that the difficulties encountered in a similar exercise in respect of Bargi do not reccur.

In the light of the preceeding discussion, the task force recommends that the following steps be taken before considering resumption of work of Maheshwar project :

1. Cost benefit analysis be computed again on the lines suggested above.
2. If the fresh computation also shows greater benefits than cost, a comprehensive plan for a rehabilitation programme strictly following the rehabilitation policy as being demanded by the Government of M.P. for Sardar Sarovar from the Government of Gujarat be prepared in a participatory manner by involving the representatives nominated by the affected families;
3. This comprehensive plan should specifically indicate the feasibility of R&R in accordance with the policy particularly availability of land for allotment to the oustees and resettlement of the villages as communities.
4. If the model R&R plan is found the feasible implementation be initiated in an exemplary manner as recommended above with full participation of the affected families.
5. The rehabilitation and resettlement must be done in such a manner that rehabilitation and resettlement of families likely to be affected during monsoon of any forthcoming year should be settled definitely, fully, finally and satisfactorily by

(19)

31st December of the preceding year without compromise on R & R policy approved.

6. All the conditions imposed by the Ministry of Environment and Forest, Government of India while giving clearance of the project be complied with both in letter and spirit for monitoring which an effective mechanism be evolved.

Only after the above steps are taken, it would be possible to go ahead with construction of the Maheshwar Project which the task force feels has more modest submergence and displacement compared to many other projects.



## **PROGRESS OF R&R WORKS** **AS ON 31.5.2000**

**Jalud** - Rehabilitation site fully developed with.

- |                     |                 |
|---------------------|-----------------|
| • Primary School    | • Children Park |
| • Panchyat Bhavan   | • Roads/Drains  |
| • Seed Store        | • Electricity   |
| • Sub-Health Center | • Water Supply  |

- 258 Plots allotted to 184 families based on eligibility
- Construction of 167 houses started by villagers
- 45 allottees are yet to apply.
- Case for Property compensation submitted to LAO.
- Grant- in- aid has been distributed to all allottees.
- Although affected persons are generally opting for direct sale of submerged agricultural land, 25 Ha. of resettlement land developed, in case any demand of land for land comes up

**Bahegaon** Site for Rehabilitation acquired .Development works completed

- All activities as per Jalud
- Secondary School

**Pitamali & Sejgaon**

- Land acquired
- Construction work for development of Pitamli commenced on 14.12.99
- Completion target AUGUST 2000.
- Const work for Sejgaon to commence in IIInd Week of JULY 2000

**Lepa & Malgaon**

- Land acquired
- Commencement of development work planned from June 2000. Proposed completion DECEMBER 2000.

**Sitoka**

- Land acquired.
- Development plan Approved.

**STATUS OF R & R OF MHEP AS ON 31.5.2000**

Sl. No.	R & R ACTIVITIES	JALUD	BEHGAON	PITAMLI	SEJGAON	SITOKA	LEPA	MALGAON
1	Plots required as per 1993 survey	191	274	48	10	28	259	88
2	Date of 1st proposal / Area	Nil 12.415 ha	23.5.98 16.12 Ha	24.6.98 3.674 Ha	18.4.98 0.65 Ha	22.4.98 1.82 Ha	13.1.98 16.83 ha	18.4.98 5.72 Ha
3	Date of approval/ Area	26.12.97 27.29 Ha	5.3.99 39.2 Ha	12.5.99 19.1 Ha	12.5.99 2.35 Ha	9.7.99 5.5 Ha	15.10.99 31.41 Ha	15.10.99 13.41 Ha
4	Plots provided	303	503	178	23	60	370	166
5	Date of land purchased/Cost	N.A N.A	24.6.99 121 lakhs	31.8.99 59 lakhs	3.8.99 7.2 lakhs	11.11.99 7.4 lakhs	27.11.99 55.8 lakh	3.12.99 41.3 lakhs
6	Approval of dev. Plan	N.A	23.4.99	12.8.99	11.8.99		7.1.00	6.1.00
7	<b>Aminities provided</b>							
a	Middle school	N.A	completed	In Progress	N.A		Work to be	
b	Primary school	completed	completed	In Progress	N.A	Dev.	be	
c	Panchyat Bhavan	completed	completed	N.A	N.A	Plan	awarded.P	Work to be
d	Seed Stors	completed	completed	N.A	N.A	approved	roposed	awarded.Pro
e	Sub-Health Center	completed	completed	N.A	N.A	on 8 / 5 /	date of	posed date of
f	Roads & Drains	completed	completed	In Progress	To	2000	compl Dec	compl Dec
g	Eletrification	completed	In Progress	In Progress	commence		2000	2000
h	Water supply	completed	In Progress	In Progress	in IInd week			
i	Parks	completed	completed	In Progress	of July 2000			
8	Family Survey	completed	completed	completed	To be Done	To be Done	To be Done	To be Done
9	Plot Allotment	258 Allotted	Not Done	Not Done	Not Done	Not Done	Not Done	Not Done
10	Grant in Aid	Paid	To be Paid	To be Paid	To be Paid	To be Paid	To be Paid	To be Paid
11	Compensation Property.	With LAO	Not Done	Not Done	Not Done	Not Done	Not Done	Not Done
12	Remarks	House construction in 167 plots started	Works completed in March 2000	Completion proposed by August 2000	Completion proposed by October 2000	Nil	Nil	Nil

**STATUS OF LAND PURCHASE AS ON 31.5.2000**

*all figures in L*

S. NO	VILLAGE	SUBMERGANCE AREA (Ha)	LAND ACQUIRED	ADVANCE PAID	OFFERS RECEIVED	TOTAL
	<b>MAHESHWAR</b>					
1	JALUD	23.76	3.469	10.204	0.581	14.254
2	KUNDA	6.324	0	1.745	1.221	2.966
3	BHASUNDA	24.469	11.562	10.938	3.019	25.519
4	SULGAON	29.835	8.453	5.329	8.291	22.073
5	LALPUR	1.221	0	0.889	0.329	1.218
6	GOGAWAN	6.654	3.089	0	0.652	3.741
7	DIGAR	6.682	0	3.347	3.339	6.686
8	PATHRAD.K.	95.004	1.72	22.246	22.696	46.662
9	PATHRAD.B.	49.386	14.336	38.571	5.332	58.239
10	CHEERAKHAN	4.427	0	0	2.089	2.089
11	BEHAGAON	30.059	0	20.663	3.118	23.781
12	PANDYAGHAT	9.956	0	0	0	0
13	KHEDI	3.487	0	0	1.8	1.8
14	SEJGAON	0.849	0	2.186	0	2.186
15	TIGRIYAON	0	0	0	0	0
16	KHARIYA	0	0	0	0	0
17	FATHEPURA	3.466	0	0	0.742	0.742
18	PITAMLI	47.795	0	31.359	15.072	46.431
19	KAVADIYA	1.332	0	3.349	0.777	4.126
20	SITOKA	0	0	0	0	0
21	KHAIGAON	0.323	0	0	0	0
22	BHAMPURA	0	0	0	0	0
23	NIMGUL	9.719	0	3.173	3.483	6.656
24	DHUWATIYA	0.088	0	0	0	0
25	GANGATKHEDI	0.129	0	0	0	0
	<b>SUB - TOTAL</b>	<b>354.965</b>	<b>42.629</b>	<b>153.999</b>	<b>72.541</b>	<b>269.169</b>
	<b>KASRAWAD</b>					
1	AMLATHA	101.763	19.978	76.847	15.209	112.034
2	NAHERKHEDI	2.471	0	0.817	1.755	2.572
3	LALPURA	11.302	0	1.578	9.603	11.181
4	LEPA	36.099	8.406	7.506	9.451	25.363
5	NANDIYA	4.313	0	4.545	0	4.545
6	SHIVRAMPURA	18.564	1.174	18737	3.494	18741.668
7	SASABARUD	8.849	0.097	7.892	0.938	8.927
8	KAYATKHEDI	14.513	0	8.001	8.906	16.907
9	TELAYAON	52.313	0	54.235	9.012	63.247
10	MALGAON	0.231	0	1.645	0.073	1.718
11	BHATIYAN BUZ.	96.094	0	35.838	52.864	88.702
	<b>SUB - TOTAL</b>	<b>346.512</b>	<b>29.655</b>	<b>18935.904</b>	<b>111.305</b>	<b>19076.864</b>

*figure should be a  
 family break down  
 = no. of families / village  
 = Number of villages*

S. NO	VILLAGE	SUBMERGANCE AREA (Ha)	LAND ACQUIRED	ADVANCE PAID	OFFERS RECEIVED	TOTAL
	<b>BARWAHA</b>					
1	NAVGHATKHEDI	0	0	0	0	0
2	MEHTAKHEDI	0	0	0	0	0
3	SEMERJA	1.051	0	0	0	0
4	KAPASTHALA	0.423	0	0	0	0
5	KATGHARA	0	0	0	0	0
6	BELSAR	5.622	0	2.711	1.882	4.593
7	MURALLA	0	0	0	0	0
8	RAMGHAT	0	0	0	0	0
9	SUSTIYA	0	0	0	0	0
10	ALJBUZURG	1.892	0	0	0	0
11	DHANPALIYA	0.182	0	0.130	0	0.13
12	TOKSAR	0.34	0	0	0	0
13	NIMSUR	0.405	0	0	0	0
14	PITNAGAR	5.518	0	0	0	0
15	JAIKHEDA	4.266	0	0.510	3.722	4.232
16	UMATI	16.332	0	6.070	6.118	12.188
17	KAKARIYA	13.331	0	0	13.618	13.618
18	KHEDI	11.602	0	3.592	7.195	10.787
19	RAVER	48.276	0	4.88	25.079	29.959
20	PACCHLA	13.788	0	6.839	7.11	13.949
21	BAKAWA	21.441	0	0	19.011	19.011
22	NAGAWAN	9.654	12.380	0.567	0.073	13.02
23	MARDANA	10.850	0	0	0	0
	<b>SUB - TOTAL</b>	<b>164.973</b>	<b>12.380</b>	<b>25.299</b>	<b>83.808</b>	<b>121.487</b>
	<b>KHANDWA</b>					
1	MORTAKKA	2.98	0	0	0	0
2	KATAR	3.52	0	0	0	0
	<b>SUB - TOTAL</b>	<b>6.50</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

### GIST OF LAND PURCHASERS

S. NO	TEHSIL	SUBMERGANCE AREA (Ha)	LAND ACQUIRED	ADVANCE PAID	OFFERS RECEIVED	TOTAL
1	MAHESHWAR	354.985	42.629	153.999	72.540	269.168
2	KASRAWAD	346.512	30.156	217.641	111.305	359.102
3	BARWAHA	164.973	12.380	25.299	83.808	121.487
4	KHANDWA	6.500	0	0	0	0
	<b>TOTAL</b>	<b>872.95</b>	<b>85.165</b>	<b>396.939</b>	<b>267.653</b>	<b>749.757</b>

## ACRONYMS

CEA	Central Electricity Authority, Government of India
GoMP	Government of Madhya Pradesh
Ha	Hectare (s)
Km	Kilometer (s)
MoEF	Ministry of Environment and Forest, Government of India
MP	Madhya Pradesh
MPEB	Madhya Pradesh Electricity Board
MW	Megawatts
NBA	Narmada Bachao Andolan
NVDA	Narmada Valley Development Authority
OECD	Organization for Economic Cooperation and Development, Paris
PAP	Project-Affected People
R&R	Resettlement and Rehabilitation
Rs	Rupees
SMHPC	Shree Maheshwar Hydro-Electric Power Corporation, Ltd
SSP	Sardar Sarovar Project
TOR	Terms of Reference