

Case Note: Case concerning the construction of the Tehri Dam. The court refused to order the Government to conduct further safety tests as it cannot sit in judgment over scientific analysis regarding safety of any project.

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IN THE SUPREME COURT OF INDIA

Decided On: 01.09.2003

N.D. Jayal and Anr.

v.

Union of India (UOI) and Ors.

Hon'ble Judges:

S. Rajendra Babu, D.M. Dharmadhikari and G.P. Mathur, JJ.

JUDGMENT

Rajendra Babu. J.

WRIT PETITION NO. 295 OF 1992:

1. The present petition under Article 32 of the Constitution of India is the second round of legal action connected to the safety and environmental aspects of Tehri Dam before this Court.

2. The petitioners herein firstly urge us; to issue necessary directions to conduct further safety tests so as to ensure the safety of the dam. Secondly, they allege that the concerned authorities have not correspondingly complied with the conditions attached to the Environmental Clearance dated July 19, 1990 and want us to halt the Project till the same is complied with. Lastly, they want us to look into the Rehabilitation aspects. Subsequent to the filing of this petition few others joined as intervenes. String of Affidavits, counter-affidavits and other documents disclosing the minutest details have been presented. Oral submissions on both sides have been addressed at length.

3. Before advertng to the contentions of safety, environmental clearance and rehabilitation, it is necessary to draw a demarcating line between the realm of policy and the permissible areas for judicial interference in the context of present case. For this, a brief factual survey is warranted. This is also necessary to appreciate the broader issues advanced before us.

4. Investigation for the purpose of construction of a dam at Tehri for hydel power generation was commenced as early as in 1961. In the year 1972, the Planning

Commission envisaged a cost of Rs. 197.82 crores and in 1976, administrative clearance to the Project was given by the Government of U.P. In March 1980, a direction was issued by the then Prime Minister for an in-depth review of the whole project. Consequently, an Expert Group was constituted by the Ministry of Science and Technology. The Prime Minister's note on the file reads as follows:

"There are several proposals which were agreed to earlier but would need to be looked into again. Amongst them are Silent Valley, the dam in Tehri Garhwal and the dam in Lalpur, Gujarat. It seems that larger areas of very fertile land are being submerged without any commensurate gains. There may be other such cases also, it is true that these decisions have been taken over a period of time but there is great local distress and a feeling that contractors and other such groups will be the main gainers. Hence, it is necessary to have another look in depth."

5. In May 1980, an interim report was submitted by the Expert Group and the final report was submitted in August 1986. Even though an expenditure of Rs. 206 crores has been incurred, the Expert Committee recommended to abandon the project. Ministry of Environment and Forest (MoEF) accepted the report in October 1986 and endorsed the view of the Expert Committee. In November 1986, the erstwhile USSR offered administrative, technical and financial assistance on a turnkey basis and the Tehri Project was revived as recipient of such aid. In November 1986, a Protocol was signed with USSR for providing technical and financial assistance for this project to the tune of 1000M Roubles. Thus the need to obtain environmental clearances even in the absence of Environmental Action Plans became urgent so as to quickly complete all administrative and technical formalities. In January 1987, the Government announced in the Press that it has cleared the project after a thorough assessment of the impact of the project on environment and after satisfying themselves that the adverse impact on environment can be remedied. A general agreement was signed in Moscow and it was decided that the dam construction would be carried out jointly by Soviet and Indian Engineers. Thereafter, the project, which was initially executed by the Irrigation Department of the Government of U.P. has been taken over by the joint venture company of the Government of India and the Government of U.P. The company was called Tehri Hydro Development Corporation Ltd (THDC). In July 1989, MoEF revised cost estimates and released further funds, conditional to its prior environmental clearance. Accordingly, THDC formulated Environment Action Plans for consideration and assessment by MoEF. In February 1990, the Environmental Appraisal Committee, MoEF concluded that the Tehri Dam Project, as proposed, should not be taken up as it does not merit environmental clearance. Subsequently, On July 19, 1990, conditional clearance to the project was given by MoEF. It was specifically provided that completion of status, formulation of action plans and their implementation will be scheduled in such a manner that their execution is *pan-passu* with the construction, failing which the engineering works would be brought to a halt and this condition will be enforced among others under the provisions of the Environment Protection Act, 1986.

6. The petitioners raised the question before us that when a decision had been taken in 1990 to abandon the project as to how clearance could be given on July 19, 1990? Again

they pointed out that on 21.10.1994 serious consequences of the implementation lagging behind was taken note of but the project was allowed to continue.

7. From the narration of various events set out earlier, it is clear that even by August 1986 an expenditure of Rs.206 crores had been incurred for the construction of the dam. It is after the THDC Action Plans for consideration and assessment by MoEF have been submitted. These were considered on two occasions: firstly, in February 1890 and again on July 19, 1090 and it is thereafter the conditional clearance was given. It is contended that the environmental clearance which was granted on July 19, 1990 is without proper application of mind and, therefore, the dam construction should not be allowed to proceed. The law on this aspect has been clearly set out in the decision of this Court in *Narmada Bachao Andolan v. Union of India* 2000 (10) SCC 664. As in the present case, in the case of Sardar Sarovar Project also, four identical conditions were imposed and they are as under:

"(i) NCA will ensure that environmental safeguard measures are planned and implemented *pari-passu* with progress of work on project.

(ii) The detailed surveys' studies assured will be carried out as per the schedule proposed and details made available to the Department for assessment.

(III) the catchment area treatment programme and the rehabilitation plans be so drawn as to be completed ahead of reservoir filling,

(iv) The Department should be kept informed of progress on various works periodically."

8. The effect of grant of clearance subject to *pari-passu* conditions has also been examined by this Court in Sardar Sarovar Project's case. It has been noticed therein that there are three stages with regard to the undertaking of an infrastructural project - the first of which is the conception or planning, second is decision to undertake the project and the third is the execution of the project. The conception and the decision to undertake a project has to be regarded as a policy decision.

9. In Sardar Sarovar Project case it was also held that when two or more options are possible and the Government takes a policy decision it is then not a function of the Court to re-examine the matter by way of appeal. Necessary analogy could also be drawn from *BALCO Employees' Union (Reqd.) v. Union of India*.

10. Once such a considered decision is taken, the proper execution of the same should be undertaken expeditiously. It is for the Government to decide how to do its job. When it has put a system in place for the execution of the project and such a system cannot be said to be arbitrary, then the only role which the Court has to play is to ensure that the system works in the manner it was envisaged. It is made clear in that decision that the questions whether to have an infrastructural project or not and what is the type of project to be undertaken and how it has to be executed, are part of policy-making process and the courts are ill-equipped to adjudicate on a policy decision so undertaken. However, a note

of caution was struck that the Courts have a duty to see that in the undertaking of a decision, no law is violated and people's fundamental rights as guaranteed under the Constitution are not transgressed upon except to the extent permissible under the Constitution. When a law has been enacted in relation to the protection of environment and such law is being given effect to and there is no challenge to such law, the duty of the Courts would be to see that the Government and other respondents act in accordance with law and there is no other obligation for the Court to examine further in the matter. We respectfully agree with the view expressed in the Sardar Sarovar project's case and apply the same to the facts arising in this case.

11. Further, it was noticed in the aforesaid decision that in cases where a project is taken up of the present nature, the Court will certainly bear in mind that environmental concern should be examined not only with reference to the submerged areas but also its surrounding areas. The impact has to be examined on the project as a whole and at the same time it should also be noticed that the construction of a dam would result in multifold improvement in the environment of the areas where the canal waters will reach. The benefits which have been reaped by the people all over India with the construction of the dams are too well-known and, therefore, the Government cannot be faulted for deciding to construct the high dam on river Tehri with a view to provide water and electricity in the area as was the decision in the Sardar Sarovar project's case also. In such situations, displacement of people residing in the proposed project sites and the areas to be submerged is an important issue. Therefore, a properly drafted relief and rehabilitation plan is absolutely required and the Government was also conscious of this particular fact. It, therefore, not only examined this matter on several occasions but also constituted an Expert Committee on 17.7.1996 to examine the environmental and rehabilitation aspects. Several times the matter was examined by the Government at different stages and follow up action plans also were actively considered by the Government. The report given by Hanumantha Rao Committee (HRC) was accepted by the Government subject to certain conditions and the project is being implemented in terms thereof.

12. Therefore, at this penultimate stage of the proceedings, it is too late in the day to think as to why the decision was taken to construct the project or decisions have been taken to continue the project though at one stage it was thought it would not be appropriate to continue the same.

13. With these clarifications, we will now proceed to the specific aspects of safety and conditional clearance.

Safety Aspect

14. Tehri Dam is being constructed at the confluence of the Bhagirathi and Bhilangana rivers in the neighborhood of the Garhwal town in the State of Uttaranchal. According to the petitioners the structure of the dam itself is not safe and also alleged that its existence increases the seismic vulnerability of the entire Himalayan region. By way of abundant caution they want the concerned authorities to conduct Three-Dimensional (3D) Non-Linear Test to evaluate the earthquake susceptibility of the dam against the Maximum

Credible Earthquake. They also insist upon the computer simulated Dam Break Analysis to estimate the magnitude of damages in the unexpected eventuality of any dam failure. The respondents submitted that they explored the possibility of such tests and arrived at a conclusion that such tests are neither practical nor necessary in the present case.

15. The respondents added that the studies related to site specific assessment of seismicity, testing of fill materials for determining dynamic properties and detailed dynamic analysis, were carried out independently by two agencies; that they are the Department of Earthquake Engineering, University of Roorkee, and Hydro Project Institute (HPI), Moscow; that the result of their studies indicated that earth and rockfill type dams as chosen for Tehri are the safest man-made structures in earthquake prone zones due to their large inertia, high damping and high flexibility; that the dam fill material is being compacted to concrete like density, which provides high strength while retaining the flexibility; that relatively flat slopes have been adopted for up-stream and down stream of the dam, which are flatter than the slopes provided in some recent high dams built/planned in regions of similar high seismicity; that, therefore, the Tehri Dam is a fail-safe structure and the design has been found safe against the worst earthquake scenario of the area, even when very conservative and severe seismic parameters were assumed for these tests. A high level Committee under the Chairmanship of Director General, Geological Survey of India, which consists members from Central Water Commission; Director, National Geophysical Research Institute; Head of Department of Earthquake Engineering, University of Roorkee, and Dr. V.K. Gaur, the then Secretary, Department of Ocean Development was also constituted to examine issues concerning safety of the dam. The Committee in its report established that even in the worst scenario of possible occurrence of a large magnitude earthquake of 8+ in richter scale with the probable location at a depth of 15 km below the dam site, the same would be safe. They concluded that dam design is safe and added that all danger arising out of the seismicity have been taken note of and taken care of in the planning of Tehri Dam project.

16. From the documents before us, it could be gathered that the Government also referred the matter to Seismic Expert, Prof. Jai Krishna who was the former President of International Academy of Earthquake Engineering and also Vice-Chancellor of the University of Roorkee. He examined the matter and opined that *"the proposed dam section for the Tehri Project is safe from the point of view of seismicity of the region"* and *"since conservatism has entered at almost every step of decision making, the overall factor of safety of the dam is high enough to eliminate any risk from earthquake of the future."* The next Expert Group that consisted of the Director General, Geological Survey of India, made a report on 25.7.1991 and recommended that the reports of the High Level Committee and the review given by Prof, Jai Krishna should be accepted. The seismic stability of the dam was further got tested through the Hydro Project Institute, Moscow, against actual acceleogram of the Gazli earthquake for the maximum vertical acceleration of 1.36g and horizontal acceleration of 0.72g both acting simultaneously and the dam design was again found to be safe. Even though the design of the dam had been earlier independently checked by two separate agencies, it was again examined and it was found that the project appears to be safe. Subsequently, during the pendency of this petition, in order to allay fears expressed in certain quarters, the Government of India in June 1996

appointed a Group of Five Experts to examine the relevant scientific and technical reports and other information relating to safety of the Tehri Dam and make its recommendations to the Government for consideration. In the selection of the experts Shri Sundarlal Bahuguna, who has been spearheading the movement against the construction of the Tehri Dam, was also associated and he recommended the inclusion of two engineers apart from the three seismologist. Thus the names of all the five Experts were suggested by Shri Bahuguna. The Group of Five Experts, after a detailed discussion on the various issues related to the seismic safety of the Tehri Dam, concluded that a comprehensive appraisal of the seismic safety of the dam required completion of the two key exercises by employing recent advances in conceptual and computational capabilities and they are, (i) quantitative estimation of seismic hazard at all the Tehri Dam site, and (ii) evaluation of the performance of the Tehri Dam as currently designed, if it was exposed to the estimated seismic hazard at the site. Accordingly, the Group of Experts got conducted the necessary exercises at their own decided parameters and methods. The Group also considered the International Commission on Large Dams Guidelines on Earthquake Analysis Procedure for Dams and Seismicity and Dam Design. Based on these materials the Group of Experts finally submitted the report on 18.2.1998. They concluded that the *"present design of the Dam is expected to be structurally safe to withstand the maximum credible earthquake during the economic performance life of the dam-reservoir system."* The Group of Experts was unanimous in their recommendation as stated above. However, as a matter of abundant caution, four Experts suggested (i) 3-D Non-Linear analysis of the Dam to evaluate its performance against the maximum credible earthquake and (ii) a simulated dam reack analysis to ensure that in the unlikely event of an uncontrolled release of water, the consequences are minimum, be conducted. There was difference of opinion between the four Experts and the Fifth Expert only on the need to undertake these two additional studies as a matter of abundant caution. The Government of India, after receipt of the report of the Group of Experts, examined the further recommendation of the four out of five Experts in consultation with the Central Water Commission, which is a technical body of the Government and nodal agency in the country for planning and design of River Valley Projects who in turn referred the report of the Expert Group together with the need for carrying out the work recommended by way of abundant caution to the National Committee on Seismic Design Parameters which is a standing technical committee and it furnished its views. In addition, plethora of material has been placed by way of various text books and studies carried out by other agencies. We think that it is neither feasible nor proper for us to delve into these details. The Government of India, after considering the views thereof, finally decided that there was no necessity to undertake the work recommended further by the Four Experts by way of abundant caution and clearance to the project was given.

17. In *Tehri Bandh Virodhi Sangarsh Samiti v. State of UP*, 1992 Supp. (1) SCC 44, the grant of clearance on July 19, 1990 was called in question before this Court in a writ petition and this Court examined the safety aspects which were brought to the notice of the court and it was held that the clearance given was not as a result of non-application of mind by the Government on safety and environmental aspects and it was particularly examined with reference to the fact that site of the project is being within the earthquake prone zone and this Court, after specific examination of the record observed that the

project was considered by the Environmental Appraisal Committee of MoEF, Committee of Secretaries, High Level Committee comprising experts of scientific and specialised organisations and also by a renowned expert of international repute and, therefore, the Government considered the question of safety of the project from various details more than once and on being satisfied with the reports of the experts gave clearance to the project. In those circumstances, this Court thought fit not to interfere with the same.

This Court dealt with the safety concerns and held that:

"...In our opinion the Court can only investigate and adjudicate the question as to whether the government was conscious to the inherent danger as pointed out by the petitioners and applied its mind to the safety of the dam. We have already given facts in detail, which show that the government has considered the question on several occasions in the light of the opinions expressed by the experts. The government was satisfied with the report of the experts and only thereafter clearance has been given to the project."

18. In the present case the Government, even after the decision of this Court which did not interfere with the decision of the Government on safety aspects In Tehri Bandh Virodhi Sangarsh Samiti's case (supra) again seriously examined safety aspects as a matter of precaution. The Office Memorandum dated 1/2/1999 of the Ministry of Power, Government of India, before us testifies this position. Green signal for further works was given by the Government after satisfying itself with the safety of the dam. A mere revisit to the earlier decision cannot be counted as a sign of doubt regarding the dam safety. If the Government so desires they could have abandoned the Project. The necessity or effectiveness of conducting 3D Non-Linear Test or Dam Break Analysis were taken into account by the Government and if the Government decided not to conduct such tests upon the opinion of the concerned expert bodies, then the Court cannot advise the Government to go for such tests unless malafides, arbitrariness or irrationality is attributed to that decision. The decision of the Government is not based on any financial constraints or uncertainty as to technical opinion. It was clearly of the view that the last Committee was unanimous that the Tehri Dam to be constructed is safe but the advice based on abundant caution was not accepted. As a result, we need not re-examine the safety aspects of the dam.

19. This Court cannot sit in judgment over the cutting edge of scientific analysis relating to the safety of any project. Experts in science may themselves differ in their opinions while taking decisions on matters related to safety and allied aspects. The opposing viewpoints of the experts will also have to be given due consideration after full application of mind. When the Government or the concerned authorities after due consideration of all viewpoints and full application of mind took a decision, then it is not appropriate for the Court to interfere. Such matters must be left to the mature wisdom of the Government or the implementing agency. It is their forte. In such cases, if the situation demands, the Courts should take only a detached decision based on the pattern of the well-settled principles of administrative law. If any such decision is based on irrelevant consideration or non-consideration of material or is thoroughly arbitrary, then the Court will get in the way. Here the only point to consider is whether the decision-

making agency took a well-informed decision or not. If the answer is 'yes' then there is no need to interfere. The consideration in such cases is in the process of decision and not in its merits.

20. In this context, reliance is sought to be placed on the decision of this Court in A.P. Pollution Control Board v. Prof. M.V. Nayudu (Retd.) and Ors. In that decision, this Court viewed that in scientific matters of complex nature resulting in uncertainty, reference has to be made to a specialised technical/expert body and not merely decide the matter on well known principles of administrative law of court not re-examining the matter if all relevant considerations have been taken note of. In the present case when once a decision had been given by this Court on safety aspects on an earlier occasion and thereafter the matter was again examined by the Government through different agencies and had taken a decision as to the necessity of further test by way of abundant caution should be relevant or not, we do not think, we can sit in judgment over such decision, particularly when there is no difference of opinion among the Experts as to the safety of the dam. It is only by way of abundant caution such studies were suggested by four out of five experts. Thus the usefulness or necessity thereof itself being in doubt, as expressed in various reports, and text books relied on by either side, the principle stated in A.P. Pollution Control Board's case (supra) cannot be applied. In that decision it was noticed that inadequacies of science had led to the precautionary principle leading to the principle of burden of proof in environmental cases where burden as to the absence of injurious effect of the actions proposed is placed on those who want to change the present state of affairs. After detailed consideration of this decision, it is held in Narmada Bachao Andolan's case (supra) :-

"It appears to us that the 'precautionary principle' and the corresponding burden of proof on the person who wants to change the status quo will ordinarily apply in a case of polluting or other project or industry where the extent of damage likely to be inflicted is not known. When there is a state of uncertainty due to lack of data or material about the extent of damage or pollution likely to be caused then, in order to maintain the ecology balance, the burden of proof that the said balance will be maintained must necessarily be on the industry or the unit which is likely to cause pollution. On the other hand where the effect on ecology or environmental of setting up of an industry is known, what has to be seen is that if the environment is likely to suffer, then what mitigative steps can be taken to offset the same. Merely because there will be a change is no reason to presume that there will be an ecological disaster. It is when the effect of the project is known that the principle of sustainable development would come into play which will ensure that mitigative steps are and can be taken to preserve the ecological balance. Sustainable development means what type or extent of development can take place which can be sustained by nature/ecology with or without mitigation.

In the present case, we are not concerned with the polluting industry which is being established. What is being constructed is a large dam. The dam is neither a nuclear establishment nor a polluting industry. The construction of a dam undoubtedly would result in a change of environment but it will not be correct to presume that the construction of a large dam like the Sardar Sarovar will result in an ecological disaster

India has an experience of over 40 years in the construction of dams. The experience does not show that construction of a large dam is not cost-effective or leads to ecological or environmental degradation. On the contrary there has been ecological upgradation with the construction of large dams. What is the impact on environment with the construction of a dam is well known in India and, therefore, the decision in A.P. Pollution Control Board case will have no application in the present case."

[at pp. 727-728]

Aspects Related to Conditional Clearance

21. Before adverting to other issues, certain aspects pertaining to the preservation of ecology and development have to be noticed. In *Vellore Citizens Welfare Forum v. Union of India*, and in *M.C Mehta v. Union of India*, 2002 (4) SCC 353, it was observed that the balance between environmental protection and developmental activities could only be maintained by strictly following the principle of 'sustainable development.' This is a development strategy that caters the needs of the present without negotiating the ability of upcoming generations to satisfy their needs. The strict observance of sustainable development will put us on a path that ensures development while protecting the environment, a path that works for all peoples and for all generations. It is a guarantee to the present and a bequeath to the future. All environmental related developmental activities should benefit more people while maintaining the environmental balance. This could be ensured only by the strict adherence of sustainable development without which life of coming generations will be in jeopardy.

22. In a catena of cases we have reiterated that right to clean environment is a guaranteed fundamental right. May be in different context, the right to development is also declared as a component of Article 21 in cases like *Samata v. State of Andhra Pradesh*,¹ and in *Madhu Kishore v. State of Bihar*.

23. The right to development cannot be treated as a mere right to economic betterment or cannot be limited to as a misnomer to simple construction activities. The right to development encompasses much more than economic well being, and includes within its definition the guarantee of fundamental human rights. The 'development' is not related only to the growth of GNP, in the classic work - 'Development As Freedom' the Nobel prize winner Amartya Sen pointed out that 'the issue of development cannot be separated from the conceptual framework of human right'. This idea is also part of the UN Declaration on the Right to Development. The right to development includes the whole spectrum of civil, cultural, economic, political and social process, for the improvement of peoples' well being and realization of their full potential. It is an integral part of human right. Of course, construction of a dam or a mega project is definitely an attempt to achieve the goal of wholesome development. Such works could very well be treated as integral component for development.

24. Therefore, the adherence of sustainable development principle is a sine qua non for the maintenance of the symbiotic balance between the rights to environment and

development. Right to environment is a fundamental right. On the other hand right to development is also one. Here the right to 'sustainable development' cannot be singled out. Therefore, the concept of 'sustainable development' is to be treated an integral part of 'life' under Article 21. The weighty concepts like inter-generational equity (State of Himachal Pradesh v. Ganesh Wood Products), public trust doctrine (M.C. Mehta v. Kamal Nath) and precautionary principle (Vellore Citizens), which we declared as inseparable ingredients of our environmental jurisprudence, could only be nurtured by ensuring sustainable development.

25. To ensure sustainable development is one of the goals of Environmental Protection Act, 1986 (for short 'the Act') and this is quiet necessary to guarantee 'right to life' under Article 21. If the Act is not armed with the powers to ensure sustainable development, it will become a barren shell. In other words, sustainable development is one of the means to achieve the object and purpose of the Act as well as the protection of 'life' under Article 21 . Acknowledgment of this principle will breath new life into our environmental jurisprudence and constitutional resolve. Sustainable development could be achieved only by strict compliance of the directions under the Act. The object and purpose of the Act - "to provide for the protection and improvement of environment" could only be achieved by ensuring the strict compliance of its directions. The concerned authorities by exercising its powers under the Act will have to ensure the acquiescence of sustainable development. Therefore, the directions or conditions put forward by the Act need to be strictly complied with. Thus the power under the Act cannot be treated as a power simpliciter, but it is a power coupled with duty. It is the duty of the State to make sure the fulfillment of conditions or direction under the Act, Without strict compliance, right to environment under Article 21 could not be guaranteed and the purpose of the Act will also be defeated. The commitment to the conditions thereof is an obligation both under Article 21 and under the Act. The conditions glued to the environmental clearance for the Tehri Dam Project given by the Ministry of Environment vide its Order dated July 19, 1990 has to be viewed from this perspective.

26. The relevant portion of the environmental clearance certificate of the Tehri dam dated July 19, 1990 is verbatim extracted hereunder:

"Tehri Dam Project was initiated in 1972 for an installed capacity of 600 MW, now revised to 2400 MW to be taken up in three stages. The collection of data and preparation of environmental action plans is yet to be finally completed. Meanwhile, an amount of Rs. 440 crores has been spent on various project related works. The Department of Power and the Government of Uttar Pradesh have assured to furnish all the detailed action plans according to a prescribed time schedule and to implement the action plan pan-passu with the implementation or the engineering works.

After taking into account all the factors, the Tehri Dam Project is accorded environmental clearance subject to the following conditions:

(A) The Project Authorities must get the safety aspects and the design of the Dam approved by the High Level Expert Committee constituted for the purpose.

(B) Comprehensive Environmental Management Plans must be formulated to the satisfaction of and got approved from, the Ministry of Environment & Forests in a time bound manner as outlined below:

3.1 Catchment Area Treatment

Obligations of Tehri Hydro Development Corporation (THDC)

(a) The THDC will, as per the recommendations of the Remote Sensing Applications Centre, UP, identify the critically degraded areas conforming to the "very high" and "high" erodability classification and prepare action plans by 31.12.90 for the treatment of these areas in consultation with the Government of Uttar Pradesh.

(b) The action plans prepared will ensure that the catchment area treatment is completed before 31.12.1995 on the basis of detailed annual action plans.

(c) The THDC will put at the disposal of the Government of Uttar Pradesh all the requisite resources annually to implement the action plans.

Obligations of the Government of UP.

The Government of U.P. will cooperate in the preparation of comprehensive action plans for catchment area treatment by 31.12.1990 and to implement these action plans by 31.12.1995 with the resources provided by THDC.

3.2. Rehabilitation

The THDC will, through a reputed institution, undertake a socio-economic study of the measures needed to ensure that the standard of living of the oustees is not affected due to the project. The study will be completed by 30.6.1991. The THDC will implement such recommendations as may be made by the Ministry of Environment and Forests for rehabilitation after consideration of the study report by the MEF. The rehabilitation package covering population affecting Koteswar dam as well as those living on the rim of the reservoir and likely to be affected will be prepared before 31.3.1991.

3.3 Command Area Development

The Government of U.P. will prepare a plan for command area development for the areas to be irrigated from the Tehri Project by 31.3.1991 and will implement this package by 31.3.1995.

3.4 Flora and Fauna

THDC will commission, a study of the flora and fauna going under submergence as well as that affected by related works in the region so that reclamation plans can be worked out along with setting up of botanical gardens. The study of flora and fauna must be

completed by May, 1991 and action plan prepared thereafter to be executed before impoundment commences.

3.5 Water Quality Maintenance

(a). The THDC will set up water quality monitoring stations to monitor the quality of reservoir water.

(b) The THDC will initiate a water quality modeling study to formulate the measures needed to preserve the water quality and prepare an action plan to Implement the measures recommended by such a study.

3.6 Disaster Management

A disaster management plan will be worked out by THDC by 31.3.1991 in consultation with the likely affected population and the area authorities.

3.7 Bhagirathi Basin Management Authority

The Department of Power will ensure the setting up of the Bhagirathi Basin Management Authority on a statutory basis through legislative action before 31.3.1991.

(C) The completion of studies, formulation of action plans and their implementation will be scheduled in such a way that their execution is *pari passu* with the engineering works failing which the engineering works would be brought to a halt without any extraneous considerations. These conditions will be enforced, among others, under the provisions of the Environment (Protection) Act, 1986."

27. In a letter sent on 21.10.1994 by the Additional Director, McEF, it is noticed that even though the Tehri Dam Project was accorded environmental clearance in July, 1990, the status of implementation of various safeguard measures is lagging far behind.

28. A communication had been sent as early as in February, 1990 containing the report of the Environmental Appraisal Committal, Ministry of Environment and Forests, Government of India wherein it is stated as under :-

"...after a careful examination of the information and data available, the Committee has come to the unanimous conclusion that the Tehri Dam Project, as proposed, should not be taken up as it does not merit environmental clearance."

29. It was also mentioned in another letter dated 19.7.1990 that "*conditional clearance to the project was given by the Ministry of Environment and Forests. It was specifically provided that completion of status, formulation of action plans and their implementation will be scheduled in such a way that their execution is pan passu failing which the engineering work would be brought to a halt. This condition will be enforced among others under the provisions of the Environment (Protection) Act, 1986.*" On 12.4.1991

another letter was sent again noticing the failure of Tehri Hydel Development Corporation (THDC) to comply with the conditional environment clearance and pointed out total dissatisfaction on the compliance contained in the conditional clearance. It was stated that THDC should submit comprehensive environmental plans as a component of the overall environment management plans and that the plan should be effectively implemented failing which action under the Act would be initiated. On 5.9.1991 a notice under Section 19(b) of the Act was issued for stopping the work on Tehri Hydro Electric Project on the ground that the non-fulfilment of conditions provided in the environmental clearance within the stipulated time frame has resulted in the lapse of the said clearance and, therefore, the work of the project should be stopped immediately. It is on the basis of these communications it is contended that as to why decision to continue the project was taken on 21.10.1994 even though the consequence was disastrous as the implementation was lagging behind.

30. Thereafter, it was noticed that on various aspects follow up is required as mentioned hereunder :-

ENVIRONMENTAL ISSUE	TARGET DATE	STATUS
1 . Catchment Area Treatment	31.12.1990	Only basic data has been received but the status of implementation and the Bar Chart is still awaited.
2.Rehabilitation	Socio- economic studies by 30.6.91 and from actual implementation 31.3.1993	The status report does not clearly indicate the task completed so far and the proposed completion programme, in fact it was agreed by D/Power that a meeting would be arrange with the officials of Administrative Staff College of India who have undertaken the socio-economic survey of the project impact area. This

		meeting is yet to take place.
5.Command Area Development	313.1993	Group have yet to submit the Command Area Development Plan
4. Flora, Fauna Studies	May 1991	The report of flora, fauna surveys have been received which have been forwarded to the BSI and ZSI for their observations by us. Comprehensive Action Plans are still to be formulated.
5. Disaster Management	31.3.91 31.3.93	The final version of the DMP has not been received in the Ministry
Ran(D.M.P.) 6. Bhagirathi Basic Management Authority		The Group have issued a Government Order on 30.3.91 regarding setting up of the Authority, Legislation, however, is yet to be brought out.

31. The main conditions that the Ministry of Environment fixes at the time of granting clearance to the Tehri Dam project is to comply with the conditions attached to the following aspects:

1. Catchment Area Treatment
2. Command Area Development
3. Flora and Fauna
4. Water Quality Maintenance
5. Bhagirathi Basin Management Authority

6. Disaster Management

7. Rehabilitation

32. On 17/9/1996, the Government of India, on demand for further examination of certain rehabilitation and environmental issues relating to the Tehri Project, appointed a Committee headed by Prof. C H Hanumantha Rao. This Committee basically looked into the Rehabilitation Policy, its implementation and the implementation of various conditions for environmental clearance. Later, Hanumantha Rao Committee submitted its Report (hereinafter, HRC Report) in October 1997. Government of India accepted certain vital suggestions in the HRC Report. The petitioners allege that even the HRC Report, as accepted by the Government, was not complied with. They argued, based on the clearance certificate that the conditions have to be carried out *pan passu* with the engineering works. And prayed that the impoundment shall not be allowed till its compliance.

33. The respondents deny this contention and submit that the environmental plans connected with the project are to be implemented *pari-passu* with the implementation of engineering works and submit that various actions have already been initiated in this regard.

34. On the question of Catchment Area Treatment, it is contended that the Remote Sensing Application Centre, U.P. made a report identifying the critically degraded areas conforming to the very high and high erodability classification has been received and submitted to MoEF. Adequate financial provisions have been made as per requirements depending on the availability of the funds with THDC for the proposed treatment and at the time of filing of the first of the counter affidavits as late as in July 1992, 17,700 hectares have already been treated.

35. Rehabilitation programme has also been taken up in consultation with the local representatives of the affected population and the Administrative Staff College of India, Hyderabad. Similar rehabilitation package as that for Tehri is proposed for families affected by Koteswar Dam as well as for those living on the rim of the reservoir. The Government of UP. had indicated to the MoEF that Implementation of plans is going on and considerable work has already been completed in this area. Studies had been conducted by the Botanical Survey of India and Zoological Survey of India regarding flora and fauna and action plans were under preparation. Water Quality Maintenance was being modelled on a report to be made by the Roorkee University and it was assured that Water Quality Monitoring Station at appropriate time during the construction will be set up. A disaster management plan has been submitted by the THDC to the Government of India. On 23.3.1990, by issuance of a notification, the Government of U.P. has set up the Bhagirathi River Valley Authority. Therefore, it is contended that formulations of environmental action plans and their implementation is being carried out *pari-passu* with the construction of engineering works. While 10% of expenditure over the estimated cost had been incurred on the project works, the corresponding expenditure incurred on rehabilitation works and the environmental measures was 41% and 52% of the estimated

cost respectively as in March 1992. It is, therefore, contended that the conditional clearance given to the respondents has not lapsed. Even the Government proceeded on the basis that the project was still a going project and therefore, appointed two expert committees even as late as in 1996 to examine -one on the safety aspect and the other on environment and rehabilitation aspects.

36. As late as on 14.3.2002 an affidavit has been filed on behalf of the Government of India. It is pointed out therein that the MoEF while according environmental clearance to the Project had laid down certain conditions in their letter dated July 19, 1990. These conditions had, *inter alia*, enumerated certain studies which were to be carried out and based on their findings, action plans had to be drawn up for execution *pari-passu* with the construction of the project, it is also pointed out that all the required studies had been completed and their reports submitted to the MoEF and these studies indicated that no environmental damage would be caused by the construction of the project which cannot be remedied by adoption of appropriate measures and for this purpose, action plans wherever called for have been and are being formulated for environmental upgradation. It is further pointed out that implementation of the project and the action being taken in regard to environmental concerns at the cost of the project would lead to improvement in the existing environment/ecology of this region. HRC was constituted to examine the implementation of various conditions of environmental clearance except that relating to safety aspects and design of the Tehri Dam and suggest additional or improved environmental safeguards, if any, based on data and information now available. HRC, after examining various documents and discussions with experts, officials and local people, and visiting the project site, submergence area and catchment areas submitted its recommendations to the Government. After detailed deliberation, the Government of India conveyed its decisions on the implementation of recommendations of HRC on environment and rehabilitation aspects of the Project on 9.12.1998.

37. In this context it is necessary to go into the details of the compliance of each condition. The aforementioned first five conditions are directly connected with the protection of environment vis-a-vis sustainable development. The last two conditions (Disaster Management and Rehabilitation) are due to slightly different reasons. We will deal with it separately.

38. The main controversy in this case is regarding the *pari passu* compliance of the conditions in the clearance certificate. Before going into any detailed evaluation of these aspects the term '*pari passu*' needs to be explained. The lexical meaning of the Latin word *pari passu* is - at an equal rate or pace, with simultaneous progress, proportionately etc. This term is generally used in the context of creditors who, in marshalling assets, are entitled to receive out of the same fund without any precedence over each other. Any way, the required application of its meaning in the background of the present case is clear. The works, which are fixed up as conditions attached to the clearance, will have to be carried out simultaneously with the engineering works. So by the time the engineering works finishes, the conditions should also have been fulfilled.

Environmental Conditions

Catchment Area Treatment :

39. Catchment Area is that area from which water is directly or indirectly flow into the river, stream etc. Total catchment area of the Tehri Project is 6921.25-sq. km. This area is divided into 16 sub-watersheds and 149 micro watersheds, Of which, 3557.99-sq km are estimated to be snow bound, rocky, precipitous, alpine blanks or within the submergence area. Main purposes of catchment area treatment are to regulate the flow of water, prevention of soil erosion, to minimize the negative impact of the project itself on the catchment and to protect and regenerate vegetation in the catchment area and the water resources.

40. Upon the acceptance of HRC Report, the Union Government entrusts the responsibility of treatment of degraded areas of 'high' and 'very high' erodability to the THDC. At the same time the State Government has to formulate separate plans for the treatment of 'medium' and 'low' categories of erosion. On principle the Union accepts to treat the entire degraded catchment of all categories. The treatment of entire catchment of high and very high erodability classification has to be completed *pari passu* with the construction of the project. It is submitted on behalf of the Respondents that an area of 37589 ha.- has been treated till December 2001 and soil conservation measures are being implemented as part of treatment program for upgrading the environment of the entire region. The treatment of the remaining area i.e.; 3670.60 ha, is proposed to be completed by September 2003.

41. On the question of Catchment Area Treatment, it is stated that treating degraded areas in the Bhagirathi catchment started even as early as in 1970. The area coverage under CAT since the inception of the project was 22000 hectares which does not include the areas covered under CAT prior to inception of the project. As per the order of the Government accepting the recommendations of the HRC is that the project authorities should strive to complete as far as possible the treatment of the entire catchment of high and very high erodability classification *pari-passu* with the construction of the project so as to be completed before commissioning of the project and it would be ensured that all direct draining areas of high and very high erodability must be completed before the ensuing monsoons and the present status of the coverage under this category is as follows :

identified high and very high erodability area - 52,204 ha
Completion of CAT carried out till date - 40,486.4 ha
Balance area to be treated under CAT - 11,717.6 ha
Balance area in Direct Draining [under forest] - 3,670.6 ha

42. The target for the area remaining to be treated as per the CAT in high and very high erodability area will be achieved by September 2003 and with the completion of the remaining area treatment of the catchment under Direct Draining will be completed. As regards low and medium erodability category actions have been initiated by the Government of U.P. and an action plan has been formulated for treating such areas out of 10,000 hectares of forest area and 3,500 hectares of non-forest area. This would be in addition to 52,204 hectares as per the 1998 CAT plan. The project authorities have

completed compensatory afforestation on 4516 hectares non-forest land in the Districts of Jhansi and Lalitpur and the Government of Uttaranchal has proposed to treat the said areas by taking up the catchment areas under densification, fuel wood plantation and restoration of degraded forests.

43. The present status in this regard is that the Catchment Area Treatment was under implementation by the State Forest Department in the catchment of high and very high erodability classification based on the earlier CAT plan formulated by the State Forest Department under which an area of 22,746 hectares was treated upto March 1994. Subsequently, it was decided to treat only the direct draining catchment of high and very high erosion class based on the satellite images. Accordingly, a CAT Plan, 1994 was formulated and submitted to MoEF for treatment of an additional catchment area of 13500 hectares in addition to area earlier treated, i.e., a total area of [22746+13500] equivalent to 36246 hectares. MoEF, however, directed in July 1998 that 52204 hectares of high and very high erosion classification, in the entire catchment, was to be treated at the cost of Tehri Project. This requirement was incorporated by the Government in its decisions on the HRC recommendations. As decided by the Government, the project is now doing CAT in the entire degraded catchment in area of high and very high erosion class after excluding the areas already treated. An area of 37591.4 hectares has already been treated till December 2001. The soil conservation measures are being implemented as part of the CAT Programme for upgrading the environment of the region. The remaining area is proposed to be treated by 2002-2003. The CAT Programme is presently being implemented by the Government of Uttaranchal.

Command Area Development :

44. Command Area Development primarily aims to avert the problems of water logging and emergence of salinity. This is very important in maintaining the environmental balance. Union government fixes the responsibility on the State of UP to finalize the command area plan and to furnish the same to the Union Ministry of Power for onward submission of the same to the Ministry of Environment and Forests. Quoting the affidavit filed by the State of Uttaranchal that "...the Government of UP submitted Command Area Development Plan (CADP) which was formulated by the Ministry of Power was forwarded to MoE in July 1988, The MoE desired CADP be revised by GOUP incorporating information on cropping pattern and ground water. The revised CADP, is in process by Government of UP..."

45. The Command Area Development Plan was submitted by the Government of U.P. to MoEF in July 1998 and the modification of the Plan was suggested by MoEF is under process. It is submitted that the existing canal networks will be utilised to irrigate extended cultivable command area of 2.7 lac hectares and stabilize existing irrigation in 6.04 lac hectares.

Flora and Fauna :

46. HRC Report points out the scantiness in the studies carried out by Botanical Survey of India (BSI) and Zoological Survey of India (ZSI) on the impact of Tehri project on flora, fauna and biodiversity. Based on the HRC Report, the Government of India has decided to conduct further studies on flora and fauna of Project region extending to two annual cycles. It also decides to carry out appropriate remedial measures based on the outcome of the studies. Another decision was regarding the carrying out of action plan to protect the Mahaseer fish. It is resolved by the Government to carry out other pre-impoundment studies and to take consequential supplementary measures. Finally they agreed to conduct another study on the impact of impoundment on the flora and fauna in the post-impoundment period.

47. In regard to flora and fauna, the study conducted by various agencies has brought out that no rare species come under submergence of the reservoir and that there is no adverse impact on the fauna of the dam except in case of Mahseer Fish. Study reports by BSI and ZSI were submitted to the MoEF along with plans for protection/propagation of Mahseer Fish recommended by the ZSI and BSI had also recommended certain species to be planted which is being done by the State Forest Department as a part of CAT Programme. Action plan for preservation of Mahseer has been entrusted by THDC for implementation to the National Research Centre on Cold Water Fisheries, Bhimtal. A Botanical Garden in an area of 14.28 hectares is also under implementation by the Uttaranchal State Forest Department near the reservoir and about 50% of its work is completed. It is also submitted that the site development work is completed and induced artificial breeding work will be completed by March 2004.

Water Quality Maintenance :

48. At the threshold itself HRC observed that it is not in a position to go into the correctness of the scientific conclusions of various bodies on the maintenance of water quality. Nevertheless they expressed certain opinion regarding the general maintenance of water quality. Central Government decides to follow the advice of Central Water Commission pertaining to the effect of water quality due to impoundment. They also submitted that the THDC is asked to formulate action plan to set-up water quality monitoring stations and to study the impact on quality of water downstream, aspects of mineral contamination etc and to take appropriate steps.

49. As regards the water quality monitoring, a report was submitted by the University of Roorkee and its report established that water quality of reservoir shall not be harmful for aquatic life or other downstream water uses. Proposal for suiting up of water quality monitoring stations as initiated by THDC with the Central Water Commission under the Ministry of Water Resources, CWC has made a revised proposal based on certain parameters recommended by the Central Pollution Control Board. Based on this, THDC in association with CWC would be setting up monitoring stations, the work on which shall be completed before the impoundment of reservoir.

Bhagirathi Basin Management Authority :

50. MoE decides to link the clearance of the Tehri project with development of Bhagirathi Basin. This is aimed in the larger interest of protecting the environment of the entire region. Development of Bhagirathi Basin therefore is very important in the context of this case.

51. The Government of U.P. had constituted the authority initially by an executive order, Bhagirathi River Valley Authority. Subsequently, Bhagirathi Basin Management Authority has been constituted on a statutory basis by a notification issued on 24.3.1999. Plan for greenbelt development along the rim of reservoir of the reservoir to prevent soil erosion and flow of silt has been prepaid. For monitoring the implementation of these aspects, an institutional mechanism has been created. The Regional Office of MoEF is set up in the States of U.P. and Uttaranchal and the same is monitoring all developmental projects including the projects at Tehri. The status of compliance of forest clearance issued in 1937 and 1997 has been monitored and the status of compliance of environment conditions was monitored in 2001 and 2003. Points of non-compliance as and when noticed have been taken up for necessary corrective action.

Impact on Human Health :

52. Large quantities of static water provide fertile breeding ground for diseases carrying vectors. River valley projects have been cited as a cause to the spread of many epidemics. Considering the fact that reservoir of the Tehri project is below 1000-m altitude, the chances of vector breeding are very high. Earlier the Bhumbra committee raised this issue pertaining to Tehri dam in 1990. But this was not figured in the clearance given to the Project by the MoEF. HRC Report pointed out this aspect and made the recommendation to undertake a comprehensive study of the potential health impacts of the Tehri dam reservoir, reservoir of the downstream dam and the irrigation canals and mandated to get the plan approved by the Ministry of Health, Government of India, It also recommended to its quick implementation. The Government accepted this reference in the HRC Report. Apart from this acceptance, the petitioners allege that no works have been carried out.

53. Right to health is a fundamental right under Article 21, Protection of this is inextricably linked with the clean environment. Clean and healthy environment itself is a fundamental right. This position was reiterated by this Court in M.C. Metha v. Union of India. Therefore the impact of the Project on Human Health cannot be given a go by, it has to be seriously scrutinized.

54. All the above-discussed aspects aimed at maintaining the ecological balance and protecting human rights are integral elements of sustainable development. Rupture to the Himalayan environment, if any, due to the dam construction could only be compensated by strictly complying with these conditions attached to the clearance. These aspects are vital for life and sustainable development of the area. If these aspects are not complied with, the human life and whole Himalayan environment will be the casualty. Only its strict compliance could maintain the ecological balance.

Disaster Management :

55. Disaster Management means all aspects of planning, coordinating and implementing all measures which are necessary or desirable to prevent, minimize, overcome or to stop the spread of a disaster upon the people or any property and includes all stages of rescue and immediate relief. It is a proven fact that lot of human suffering and misery from large number of disasters can be mitigated by taking timely actions, planning and preventive measures. It is possible only through well functioning disaster management framework. This will enable us to minimize, control and limit the effects of disaster and will streamline the disaster management exercises. Our present relief centered re-active approach after the striking of disaster need to be changed into preparedness oriented pro-active attitude. This is the aim of pre-disaster preparations. Disaster Management Plans has to play an integral role in this exercise. They are blue prints for the management of disasters. The Disaster Management Plans should contain the aspects of disaster prevention and of ways for its management in the untoward occurrence of a disaster. A proper plan will place the disaster management exercise on a more firm foundation.

56. It is a welcome gesture that the Clearance to this Project contains a condition for chalking out disaster management plan. Disaster Management activities should be integrated with the developmental activities. Incidentally, this is also the resolve of the Yokohama Strategy of the United Nations International Decade of Natural Disaster Reduction, to which India is a party. There is an affirmative obligation on the part of the State to preserve and protect human life and property. This obligation is an integral element in fulfilling developmental endeavors. Therefore, disaster management cannot be separated from sustainable development.

57. The respondents submit that the Ministry of Agriculture has approved the Disaster Management Plan prepared by the THDC. And added that they are going to dovetail disaster management plan of the state government at the District level into the plan prepared by THDC. As regards the disaster management, the nodal agency is the Ministry of Agriculture and disaster management plan was approved by the said Ministry in 1992 and a steering group has been constituted by the Government in every district under the chairmanship of district magistrate for flood fighting and related activities and the Steering group will implement the disaster management plan in case of any eventuality from the dam. The Government of Uttaranchal has also constituted a Steering group under the Chairmanship of the Principal Secretary [Irrigation and Energy], to meet any emergency situation due to the dam. But effectiveness of all these exercises is in the proper carrying out of management activities.

Rehabilitation

58. The construction of Tehri and Koteshwar dams will result in the formation of two lakes having a spread of 42 sq. kms and 2.65 sq. kms respectively at full reservoir levels. The Tehri dam will submerge Tehri town and 22 villages, Another 74 villages will be partially affected. A major portion will get affected in the first phase with the construction of the Cofferdam and the remaining by final impoundment. In addition 2 villages fully and 14 villages partially will be affected by the Koteshwar dam. By the construction of New Tehri Town, project works and colony construction will affect another 13 villages.

In total, Tehri power project will affect 37 villages fully, 88 villages partially and the Tehri town. Rehabilitation of these much-affected people is the main issue before us.

59. Rehabilitation is not only about providing just food, clothes or shelter. It is also about extending support to rebuild livelihood by ensuring necessary amenities of life. Rehabilitation of the oustees is a logical corollary of Article 21. The oustees should be in a better position to lead a decent life and earn livelihood in the rehabilitated locations. Thus observed this Court in *Narmada Bachao Andolan's case* (supra). The overarching projected benefits from the dam should not be counted as an alibi to deprive the fundamental rights of oustees. They should be rehabilitated as soon as they are uprooted. And none of them should be allowed to wait for rehabilitation. Rehabilitation should take place before six months of submergence. Such a time limit was fixed by this Court in *B D Sharma v. Union of India* (1992 Supp (3) SCC 93) and this was reiterated in *Narmada*. This prior rehabilitation will create a sense of confidence among the oustees and they will be in better position to start their life by acclimatizing themselves with the new environment.

60. The rehabilitation package is prepared. It is also made clear that the rehabilitation conditions in this case are also applicable to the oustees of Koteswar dam as well as those living on the rim of the reservoir and to all those who are likely to be affected by the project. The concerned authorities will have to take proper steps to rehabilitate all those who are entitled for rehabilitation before six months of the impoundment. Without the completion of rehabilitation there shall not be any impoundment.

61. According to the affidavit filed by M.L. Sharma, Under Secretary, Ministry of Power, on behalf of the Union of India, reported on the status of the follow-up action on the recommendations of the two expert committees constituted by the Government of India on environment and rehabilitation aspects of the project and that the recommendations made by the HRC were considered by the Central Government in consultation with the Government of U.P. and it was decided to implement those recommendations as per the decisions indicated against each of the recommendation annexed to the Office Memorandum dated December 3, 1998, It is also made clear that the expenditure shall be shared by the Government of India and the Government of U.P. in the ratio of 60:40 and it was also decided that the Government of U.P. shall take over the direct responsibility for the entire rehabilitation task to be handled directly by its officers under the overall supervision and control of the Commissioner, Garhwal Division for which the State Government shall issue appropriate orders accordingly. Recommendations of the HRC, as accepted by the Government, have been produced before us.

62. It is contended on behalf of the Government that though developmental programme are intended to benefit the citizens of the country but when displacement is on large scale it is the moral duty of the State to ensure that those who are being displaced are properly looked after. This Court in *Narmada Bachao Andolan's case* (supra) noticed that displacement of people living on the proposed project sites and the areas to be submerged is an important issue and a properly drafted relief and rehabilitation plan would improve the living standards of displaced persons after displacement. When clearances are given,

conditions regarding preservation, conservation and rehabilitation are imposed and those conditions will have to be fulfilled by the authorities concerned to implement the project.

63. When the Government in their concern in this regard had constituted HRC and HRC had made various recommendations, some of which have been accepted, as adverted to earlier, certain grievances are set up in an affidavit filed on behalf of the petitioners on 4.9.1999 before this Court and our findings upon those grievances are as follows :

1. That HRC gives only 2 acres of land to each displaced family is not satisfactory. In case of Sardar Sarovar Project in Gujarat, it is contended that each family is getting 2 hectares of land as a minimum and there is no logic for discriminating against the project affected persons of the Tehri Project and such discrimination violates their fundamental rights under the Constitution to be treated as equal under the law. We do not think that it would be appropriate to hold that the extent of land recommended by HRC is inadequate or insufficient. Such recommendation has been made by HRC after due deliberation in the matter on the availability of the land in the region, the life style of the persons affected, their needs and other relevant factors in this regard. Above all, the project is being carried out in a hilly area where land is very scarce. In such circumstances, we do not think any comparison can be drawn between Sardar Sarovar Project and Tehri Project. Hence we reject this contention raised on behalf of the petitioners.

2. Next recommendation in respect of which objection is raised is that the Government of India has chosen to treat as separate families sons and unmarried daughters who have attained the age of 21 years on the prescribed date, it is urged that 18 years should have been taken as the age for such classification and not 21 years. These matters are in the realm of decision of the recommendatory body and the Government. If the Government had chosen any other age, we could not have held it to be Irrational. The contention that voting rights to citizens had been given even at the age of 18 years has no relevance to the facts under consideration. Therefore, this contention also does not deserve our intervention.

3. The next objection is raised in regard to major sons and unmarried daughters not being given land but only cash and is not acceptable as the same results in discrimination particularly once they have been recognised as separate families and such discrimination would be violative of their fundamental rights under the Constitution and it is contended that all major married sons should be given 2 hectares of land as a minimum and all the other benefits due to them as a displaced family under the package and they can be given the option of taking cash, equivalent to the value of 2 hectares of land in lieu of the land, if they so desire. This argument also cannot be accepted because as stated earlier on account of scarcity of land it may not be feasible to provide land to every family and even such families as have been treated for purposes of giving larger benefit major sons and unmarried daughters are treated as a separate family and not for any other purposes. Similarly other contention that the unmarried sons and daughters should be treated as a half a family unit and should be given half hectare of land or cash in lieu thereof, cannot be accepted.

4. The contention now put forth is that the lands have not been acquired as yet for the purpose of rehabilitation and the affected population is not rehabilitated as yet and until they are relocated together no further progress of the work should be allowed and it is further contended that if the families are displaced for the project these affected persons should be rehabilitated keeping in view the policy, package and procedure applicable to the Tehri project

64. In regard to the cases where families have already been shifted and where rehabilitation has already been done, HRC recommended that only cash amount awarded to be paid instead of land and the cash option is recommended considering lack of land available for rehabilitation. Major married sons receive Rs. 1,50,000/- and the major unmarried sons and major unmarried daughters receive Rs. 75,000/- each. The Government accepted this recommendation subject to the condition that all additional living eligible family members of fully affected families as on 19.7.1990 [excluding those who are given land for cultivation] including families already shifted in the past to the resettlement colonies from their earlier settlements would be eligible to receive payment of an ex-gratia amount equivalent to 750 times the minimum agricultural wage which at current rates is Rs. 33,000/- per person. These are matters of policy and when the Government takes such a decision bearing in mind several aspects, we do not think this Court should interfere with the same.

65. In cases where families have not been shifted or given rehabilitation benefits for newly recognised additional families, HRC recommended that only cash be paid instead of land for same reasons and also recommended a residential plot be given measuring 200 sq.mt. in a rural rehabilitation centre or cost will be given to each major married son. The existing scheme for grant of interest subsidy on loan for construction of house is recommended. The Government accepted the same and stated that it shall be the responsibility of the State Administration based on the census, voters' lists, and If necessary, separate house to house survey may be conducted and that additional family members of the landless agricultural labourers as on 19.7.1990 would also be eligible to receive the recommended ex-gratia amount as for the fully affected land owner families. The identification of agricultural landless labourers and their additional family members shall be decided by State Administration. The recommendation for allotting 200 sq.m. residential land or cash in "lieu thereof, to each married son of the rural land owner family was not accepted by the Government, It is contended on behalf of the petitioners that HRC's recommendations should be accepted by the Government but the Government has formulated another scheme instead of what is recommended by HRC and have suggested payment of ex-gratia amount in the same manner as is given in respect of the affected families and, therefore, no exception can be taken to the decision of the Government.

66. The villages were identified by HRC as fully affected where 75% or more families are fully affected. HRC recommended that in the partially affected villages [where less than 75% families are fully affected], the fully affected families will have the option of resettling else where with rehabilitation provisions or remain in the unaffected part of the village. The families that remain there will be allotted land on pattas from the left over

surplus land. The Government accepted the recommendations as to the categorisation of the fully and partially affected families and also stated that they would be entitled to rehabilitation benefits as admissible in the existing policy and all additional family members of those families would also be entitled to receive ex-gratia payment of Rs. 33,000/-. It is contended on behalf of the petitioners that HRC recommendation should have been fully accepted by the Government. It was made clear by the Government that the partially affected families that remain in these villages shall be entitled to be allotted submerged land on pattas subject to availability during the low reservoir level periods for temporary cultivation admissible under the existing policy. It is contended on behalf of the petitioners that the practice of allowing cultivation in submerged land during low reservoir level periods leads, to enhanced siltation of reservoir and, therefore, should be discouraged. The view taken by the Government is that even after accepting the recommendations made by HRC a condition is imposed that during the low reservoir level periods, land should be given for temporary cultivation not otherwise. Therefore, it cannot be said that such a condition is unreasonable.

67. The next objection raised by the petitioners is in regard to the house construction assistance to each married son and major unmarried sons and major unmarried daughters @ Rs. 60,000/- and payment of this amount is linked with the progress of construction and shifting. The Government did not accept the same and ordered that the additional members of urban entitled house owner families of Tehri Town as on cut-off-date of 6.6.1985 would also be eligible to draw ex-gratia of Rs. 33,000/-, which, it is stated, has been subsequently enhanced. For similar reasons stated earlier, objections raised on behalf of the petitioners stand rejected.

68. As regards the rehabilitation programme, the status is that socio-economic study concerning the living standard of resettled families was got done through the Administrative Staff College of India, Hyderabad, which revealed that the quality of life of the resettled families is far above and better than what was the situation before rehabilitation. A well defined R&R Policy and Package has been formulated by the Government of U.P. and THDC for Tehri Project affected families which has been improved from time to time to take care of changing requirements. The rehabilitation of affected families of the project is now being handled by the Government of Uttaranchal. As a part of Phase II programme covering about 2500 fully affected rural families to be affected families due to reservoir impoundment, additional land has been identified and is being provided and acquired in Hardwar and Dehradun Districts. Approval of 275.20 hectares of land at Pashulok and 1083 hectares of land at Pathari Block, on lease basis, has been accorded by the Government for resettlement of the remaining fully affected rural families. In addition, proposal for acquisition of about 900 acres of land in District Hardwar and Dehradun is being processed. The State Government proposes to complete rehabilitation by June 2003.

69. The present status of the urban rehabilitation programme covers Tehri Town involving a total of 5291 families falling within the cut-off date of 6th June, 1955. The rehabilitation package available for them is as follows:

(i) "Under Urban resettlement programme, affected families are being rehabilitated at the New Tehri Town [NTT] or at Rishikesh and Dehradun, as per their option. Apart from compensation for their existing/shops and other structures at the Old Tehru Town, land/house owner oustees are provided with plots at a nominal cost for building their houses. The tenants at the old Tehri Town are being given built-up flats, on payment on subsidised terms.

(ii) For the urban shop-keepers, shops have been constructed at NTT, Rishikesh and Dehradun.

(iii) The details of the Urban Rehabilitation Package are given in the rehabilitation policy booklet enclosed hereto as Annexure IV."

70. As regards the rural rehabilitation, the policy is :

1. Rural oustees to be compensated through allotment of agricultural land or cash in lieu thereof.

2. The rural oustees should be settled in large blocks so that the fabric of their social life remains intact.

3. Ousteas or their representatives be involved to the extent possible in selecting the rehabilitation centres.

4. To the extent possible, consideration be given to the preference of the oustees for settlement at a particular center.

5. Community facilities be provided at each of the rural rehabilitation centers at the cost of the project even if these did not exist at their earlier settlements.

71. It is further pointed out that package has been further improved from time to time without changing its basic features and the details of the rehabilitation are set out in Annexure V. Various facilities provided are set out in Annexure VI. The progress of the rural rehabilitation is as follows :

"RURAL DISPLACED FAMILIES

Activity	Total Fully Affected Families"	ilies Rehabilitated/Paid compensation	%age Progress
Phase-1	2064	2034	98.50
Phase-11	3365*	973	29.00
TOTAL	5429	3007	55.38

*In addition to these fully affected families, 3810 families are partially affected who are not to be relocated but are to be paid cash compensation for their part-land coming under

submergence. Besides, they would be provided all other benefits as laid down in the Policy for them.

**The figures are based on the survey conducted by Rehabilitation Directorate, Government of Uttaranchal in 2001

PRESENT STATUS OF RURAL REHABILITATION

S.No.	Description	No. of affected villagers	Total land affected (In acres)	NO. of Affected families	Fully affected families be rehabilitated	Number of fully affected families to be rehabilitated	Balance of fully affected families from rehabilitation
1	2	3	4	5	6	7	8
1	Full submerged/ Affected Area	37	2293.93	3355	3355	2883	472
2	Partially submerged/ Affected Area	72	1936.911	*5884	2074	124	1950
	TOTAL	109	4930.841	9239	5429	3007	2422

Add 5% Extra (for landless persons + increase families since last survey): 121

BALANCE FAMILIES OF TEHRI DAM FOR RESETTLEMENT : 2543

Note : i) Above details are based on survey conducted in the year 2001.

ii) *3810 families are partially affected families, which are not to be shifted."

A socio-economic study of the families rehabilitated was conducted by the Administrative Staff College of India, Hyderabad in March 1993. Similarly, the Estimates Committee of U.P.Legislature has also visited some of the resettlement colonies in 1989 and an extract from their report reads as follows :

"The Committee during its visit inspected the resettlement colonies at Bhaniawala, Raiwala and Pathri Block The Committee found that the facilities provided in these colonies are better than any village in the country. There are well laid roads. There is provision for street lighting. Provisions for Irrigation and Drinking water are available. Efforts have been made to provide the facilities of Hospitals and Schools."

72. There have been several further improvements in the rehabilitation package for the Project affected families. House construction assistance for Old Tehri land owners was Increased from the minimum of Rs. 60,000/- to Rs. 1,25,000/- without any deduction of

previously paid compensation which corresponding increase in other stabs. Thus, the amount of house construction assistance admissible to urban house/land owner families as under:

1. Tenants to be provided constructed flat at lower rate of pre-1989 cost i.e., @ Rs. 1819/- per sq.m. in place of Rs. 3771/- per sq.m. The hire purchase scheme, therefore, as mentioned in the rehabilitation policy has been withdrawn. 2. The shop keepers of old Tehri town to be provided shops in NTT/Dehradun/Rishikesh at pre-1989 cost i.e., @ Rs.1440/- per sq.m. in place of Rs.3707/- per sq.m.

3. The Government of Uttaranchal have on 7.7.2001 allowed to the shopkeepers of Old Tehri Town a goodwill grant varying from Rs. 1 to 3 lacs on handing over the possession of their shops. 620 shopkeepers have been paid this amount upto 31.10.2001.

4. The Government of Uttaranchal have also allowed 48 nos. of advocates who were practicing before year 1985 to receive a grant of Rs. 1.50 lacs each, distribution of which is under process.

73. Further proposals have also been made for changes in the conditions of eligibility for allotment of 2 acres of land for such of those persons who had sold their holding to meet emergent needs before the issue of Section 4(1) notification under the Land Acquisition Act, grant of house construction allowance to rural families, increase in the amount of cash grants for purchase of seeds and fertilizers, and increase in the amount of cash in lieu of land allotment to Rs. 5 lacs as against the existing limit of Rs. 2 lacs. Proposals had since been discussed with the Government of India in inter-ministerial meeting held on 14.12.2001. Further developmental activities are also to be carried out including construction of bridges and roads, establishment of degree and intermediate colleges in rural areas, an ITI, upgradation and setting up of hospital/medical facilities, improvement of electricity lines and sub-station, etc. The Government further gives the details of the land available and the proposed number of families for resettlement. For grievance redressal certain camps had been organised by the Director, Rehabilitation approved by the Government and a grievance redressal cell is functioning in the Rehabilitation Directorate, Uttaranchal Government. Coordination Committee under the Chairmanship of the Commissioner, Garhwal and Co-chairmanship of the CMD, THDC and having Government officials and public representatives as its members, monitors the progress and coordinates between different departments about the progress of work and redresses the difficulties experienced by different departments and partially affected families and give its decision/directions. The Government has also set out details on the Project Works to which reference at this stage may not be necessary.

74. On the question of resettlement and rehabilitation, the first phase covering those affected due to construction of coffer dam and closure of diversion tunnels T3/T4 is complete and in the second phase, all remaining families to be affected due to impoundment of reservoir would be rehabilitated. Details of the same are set out as under:

"Urban Total Affected Families:

5291 [100% families have been compensated in the form of houses, plots and shops except affected families from Koteswar dam]

Gramin Total Affected Families:

9239 [Compensation paid - 7291 compensation yet to be paid -1948]."

75. It is no doubt true that in regard to certain aspects such as Catchment Area Treatment, conditions imposed are not fully implemented and it is not very clear from various affidavits filed whether in regard flora and fauna also the, conditions have been fulfilled or not. When *pari-passu* conditions have been imposed, it is necessary that the conditions are fulfilled along with the construction of the engineering works. In refuting the contention of the petitioners that impoundment in the reservoir has been done before the *pari-passu* implementation of environment and forest conditional clearances, it is stated as follows:

"Diversion tunnels on the right bank, T3/T4 have been closed in December 2001 for taking up construction of stilling basin and shaft spillway. The reduced levels of T3 and T4 tunnels are 606 M and 609 M respectively. Diversion tunnels on the left bank, T1/T2 have been kept open for discharging the water downstream. The reduced level of both T1 and T2 is the same viz., 632 M. The current quantity of discharge remains unabated from the discharge prior to the start of project construction. There is no alteration/reduction in quantity of water discharged from the river prior to taking up the project and as of now. - The maximum discharge in the river observed during floods in the year 1978, that is 3669 cumecs.

Impoundment in the reservoir is generally done for the purpose of deriving benefits from the storage by creating facility for irrigation, drinking water supply, power generation etc. As a matter of fact, none of the benefits are presently accruing from the project at the current stage. Diversion tunnels T3/T4 have been closed for taking up construction of stilling basin before they are permanently closed."

76. It is submitted on behalf of the respondents that the initial impoundment in the reservoir will start with the closure of diversion tunnels T1/T2 and water level rising to EL 700 M. The maximum draw down level is EL 740 M, The reservoir spread at EL 700 M will be 10 sq. km. Compared to full reservoir spread at 830 M of 44 sq.km. The present water spread of reservoir at EL 632 M is 1.2 sq.km. only. It is also made clear on behalf of the respondents that this implied that commensurate safeguards in the works related to Catchment Area Treatment, Command Area Development, Rehabilitation and resettlement, protection of flora and fauna, disaster management plan, etc. are ensured along with the progress of the construction works and it was also implied that the completion of project meant rise in water level in the reservoir and simultaneously increase in the water spread.

77. It is made clear that the condition of *pari-passu* implementation of conditions prior to the commissioning of the project shall be closely monitored under the existing mechanism set up by MoEF and the project authorities will ensure that prior to closing of diversion tunnels T1/T2 for Impoundment of the reservoir, evacuation, resettlement and rehabilitation are completed In all respects. In addition, the catchment area treatment of direct draining areas shall be completed and the project authority will obtain clearance from MoEF before closing the outlet at EL 700 M. An additional affidavit has also been filed on behalf of the Union of India to the effect that a high level inter-ministerial review committee Would be constituted consisting of Secretaries of all the concerned Ministries of the Central Government to examine various aspects and closely monitoring of the same. It is only after the completion of these conditions, impoundment would start. This categorical statement made by the respondents should assure the petitioners that no impoundment would be allowed until all the conditions in the Environmental Clearance Certificate of the Tehri Dam dated July 19, 1990 are complied with and stand fulfilled.

78. The petitioners have disputed that the respondents have complied with the conditions of clearance. But a careful analysis of their pleadings will indicate the dispute is to the extent of compliance only and not that there is no compliance at all. On behalf of the Union of India, a status report supported by an affidavit is filed which indicates that there is substantial compliance with all the conditions. We have in detail discussed the various facts set out in the said affidavit and status in the earlier portion of this order.

79. In this background, we find that the petitioners have not established or is there any material to conclude that the Project work is being carried on without complying with the conditions of clearance. Though there were certain lapses at certain stages, they were taken care of by monitoring agencies.

80. To ensure that all the conditions for environmental clearance are fulfilled and for proper monitoring, we transfer all these cases to the High Court of Uttaranchal to be dealt with by a Division Bench. The High Court shall deal with these matters as if filed before it and shall be at liberty to pass any orders. However, it is made clear that it shall not be open to re-examine the matters such as safety of the dam and other aspects relating to implementation of conditions contained in the Government orders which have been decided in this case. This course we are adopting following a line of cases in Indian Council For Enviro-Legal Action v. Union of India and Ors., 1996 (5) SCC 261; M.L. Sud & Ors. v. Union of India and Ors., 1882 Supp. (2) SCC 123, and Mohan Chand v. Union of India and Ors., 1995 Supp. (3) SCC 425, which were all cases filed under Article 32 of the Constitution and in one of the cases, which pertained to environmental issues, it was observed as follows :

"As far as this Court is concerned, being conscious of its constitutional obligation to protect the fundamental rights of the people, it has issued directions in various types of cases relating to the protection of environment and preventing pollution. For effective orders to be passed, so as to ensure that there can be protection of environment along with development, it becomes necessary for the court dealing with such issues to know about the local conditions. Such conditions in different parts of the country are supposed

to be better known to the High Courts. The High Courts would be in a better position to ascertain facts and to ensure and examine the implementation of the anti-pollution laws where the allegations relate to the spreading of pollution or non-compliance of other legal provisions leading to the infringement of the anti-pollution laws. For a more effective control and monitoring of such laws, the High Courts have to shoulder greater responsibilities in tackling such issues which arise or pertain to the geographical areas within their respective States. Even in cases which have ramifications all over India, where general directions are issued by this Court, more effective implementation of the same can, in a number of cases, be effected, if the High Courts concerned assume the responsibility of seeing to the enforcement of the laws and examine the complaints, mostly made by the local inhabitants, about the infringement of the laws and spreading of pollution or degradation of ecology."

(See : Indian Council For Enviro-Legal Action's case (supra), at p. 301)

81. Proceedings arising under Article 32 need not always be dealt with by this Court alone and in appropriate cases suitable directions, including transfer of the matter, can be issued to High Courts or other authorities (Like, National Human Rights Commission) to deal with such matters. Thus, we find that it is legal and expedient to transfer these cases to the High Court of Uttaranchal.

82. Accordingly, with these directions, this petition shall stand disposed of.

T.C. (C) NO. 50/1996. T.C. (C) NO. 51/1996. T.C. (C) NO. 52/1996. T.C. (C) NO. 63/1996 :

83. In the light of the orders made in Writ Petition No. 295 OF 1992, these Transferred Cases shall stand disposed of in the same terms as set forth above.

Dharmadhikari J.

84. Having carefully perused the opinion of learned Brother S. Rajendra Babu 3. I find myself unable to agree with him that no directions to the respondents in this Writ Petition are required. In my considered opinion, looking to the dimensions and implications of the case on environment and human rights a monitoring mechanism is required to be set up and activated to ensure compliance of the conditions on which clearance was granted to the construction of a dam in Himalayan valley near Tehri, It may be legal but not efficacious to transfer this writ petition under Article 32 of the Constitution of India to the High Court of Uttaranchal for monitoring the compliance of the conditions on which environmental clearance was given to the Tehri Dam Project. With utmost respect, therefore, I have considered it necessary to record my separate opinion with conclusions containing the directions which are required to be issued to the respondents in this writ petition.

85. Learned Brother S. Rajendra Babu J. has in detail given necessary facts and events leading to the filing of the writ petition. I would, therefore, confine myself to giving the necessary background on which my opinion and conclusions are based.

86. In this writ petition under Article 32 of the Constitution of India filed by the petitioners in public interest, directions are sought to be issued to the respondents, representing the authorities and corporation of union and State Governments, to take necessary measures for protecting environment and human rights which are likely to be adversely affected by construction of Dam in the Valley of Himalayas near Tehri town of the new State of Uttaranchal.

87. The rivers Bhagirathi and Bhilangana rise from glaciers in the Himalayas, part of Garhwal of erstwhile North-Western UP and now part of the new State of Uttaranchal. The two rivers flow south to the plains to form confluence as the Holy river Ganga. Close to the Garhwal town of Tehri at the confluence of two rivers Bhagirathi and Bhilangana more than three billion \$ clay core rockfill dam is being constructed in the upper Ganga basin. The dam area will cover 45 kms. Bhagirathi valley and 25 kms. Bhilangana valley with water spread over an area of 42.5 sq. kms. which will submerge nearly 100 villages including the town Tehri as many as 90,000 families will be relocated as the result of the dam project. The Government of India and the State of Uttaranchal claim that the dam project had undertaken to generate 2,400 mg.watt of electricity and will create irrigation facilities for 2,070 lakh hectares of land. There are plans also to create supply of 500 cusecs of water to New Delhi.

88. Human Rights and environment activists have approached this Court to protect the interest of general public and particularly the people living in Tehri town and in surrounding areas of Garhwal who are likely to be displaced for completion of the Project. They have also raised issues of great importance such as the safety of the Dam and the likely devastation and loss of properties and lives of the people in the down stream, if the Dam, being situated in a highly earth quake prone area, bursts or leaks. It is stated that structurally the dam may be incapable of withstanding earthquake of above seven on Richter scale. It is submitted that great danger is posed to down stream cities and population particularly the holy Pilgrim centres like Haridwar and Rishikesh which are in danger lone. The structural flaws of the dam and rehabilitation policies provoked public agitation and international attention. The Dam Project was stopped which had begun in 1978.

89. A petition was filed in this Court by Tehri Bandh Virodhi Sangh Samiti in the year 1985 for intervention of the Court to stop construction of the Dam as it puts great threat to the safety and lives of the people living in surrounding villages and towns and also holy places down stream. The petition was dismissed by this court and the decision is reported in 1992 (suppl) 1 SCC 44. The Court relied on the technical data furnished to the Government which had prepared the Plans for Tehri Dam Project and held that since all aspects of safety have been taken into account by Indian and foreign Experts, the Court has no ground before it to restrain the authorities from proceeding ahead with the implementation of the Project.

90. In the year 1986, the Soviet Union agreed to fund the project with loan on concessional terms. As a part of the agreement with the Government of India for funding the Project, the Soviet Experts conducted a review of the proposed Project and gave a finding that the highest seismicity of the Tehri area had not been adequately taken into consideration by Indian planners. The combined Soviet and Indian teams also found that the life of the Dam claimed to be 100 years may not be accurate and its life would be 62 years or less. They also found that about 85,600 people would be displaced by the project.

91. At this stage, of hearing of the case, several developments which took place in the interregnum are required to be stated. As a result of public agitation and protest from the people of Garhwal region to the Project for construction of Dam, in March 1960, the then Prime Minister of India intervened and directed an in-depth review of the Project by an expert group constituted by the Ministry of science and Technology. The technical group submitted its report in 1965 and recommended abandonment of the Project despite expenditure already incurred in the sum of Rs. 2,006 crores. Environmental Appraisal Committee (EAC) which is a Expert Body within the Ministry of Environment and Forests recorded a unanimous conclusion that Tehri Project did not merit environmental clearance and should be dropped. The Tehri Project was thereafter revived only when USSR Government agreed to provide technical and finance assistance. The Dam Project which was initially taken up by the Irrigation Committee of erstwhile State of Uttar Pradesh was taken over by a joint venture company of Government of India and State Corporation viz., Tehri Hydel Development Corporation (respondent herein). The Corporation took over the construction of Dam in July 1988. The Corporation reformulated Environment Policy. It was In February 1990 that the EAC in the Ministry of Environment and Forests came to the conclusion that taking into consideration the risks and hazards involving ecological and social impact with huge cost and less benefits, the Dam Project does not merit environmental clearance. The exact words of the EAC are as under:-

"Therefore, taking into consideration the geological seismic setting, risks and hazards and ecological and social impact accompanying the Project, the costs benefits expected and after a careful examination of the information and data available, the Committee has come to the unanimous conclusion that Tehri Dam Project, as proposed, should not be taken up as it does not merit environmental clearance."

92. In normal course, the conclusion of the EAC should have closed the matter for abandoning the Project. Surprisingly, the continuance of the Project was entrusted to a Committee of Secretaries. The Committee re-assigned the task to the Department of Mines. The Department of Mines relied on the opinion of Prof. Jaikrishna who is an earthquake Engineer when Dr. V.K. Gaur who is seismologist had given a dissenting opinion and so also the foreign expert Dr. N. Brune.

93. It is after this re-appraisal of Project from safety point of view by the Department of Mines based on the expert opinion of earthquake Engineer Prof. Jai Krishna, clearance was given on 19.7.1990 to the Project by the Ministry of Environment and Forests. Since

by this time the Environment Protection Act 1986 with Environment Protection Rules framed thereunder had already come into force making it a statutory requirement to obtain clearance from the Environment Department for undertaking the Project of such dimension affecting environment, ecology and human beings, only a **conditional clearance** was granted to the Project. The various conditions subject to which the environmental clearance to the Project was granted have been reproduced in the opinion of learned Brother 5. Rajendra Babu J.

94. The final condition stated thus :- If the completion of studies, formulation of Action Plan and their implementation to be scheduled in such, a way that their execution is *pari passu* with the engineering works is not adhered to, all engineering works of the Project should be stopped and this condition will be enforced under the Provisions of Environment Protection Act 1986.

95. The Ministry of Environment and Forests wrote a letter on 12.4.1991 expressing dissatisfaction on failure to comply with the conditions on which environmental clearance was given. The respondent-Corporation was directed to submit comprehensive Environmental Plan for effective implementation falling which remedial or prohibitive action under the Act of 1986 was proposed.

96. On. 5.1.1991 the petitioner gave a notice under Section 19B of the Act to the Secretary of the Ministry of Environment and Forests stating that a the result of non-fulfillment of condition of clearance of the Project by the Corporation, direction should be issued to stop the Project work, significantly, after service of this notice on 21.10.1991 an earthquake measuring 6.1 on Richter scale hit the Garhwal region causing massive damages to Uttarkashi and Chamoli villages killing 2,000 people. Damage was also caused to constructions for dam already made and Tehri town itself. The Power Ministry, however, maintained that half finished Dam works, were not damaged. This earthquake which shook Garhwal region naturally revived debates and protests on the location of the Dam and its safety in such a highly earthquake prone region. The petitioners again raised the question as to whether the Dam as designed and completed would withstand likely earthquakes of more than 6,1 on Richter scale, The present petition was filed on 7.12.1991 in which issues of safety of the Dam, its adverse impact on environment, displacement of people and their rehabilitation have all been raised. Specific issue has been raised that due to non-fulfillment of the condition of environmental clearance, there is no legal justification to allow further construction works at the Dam site.

97. In the communication dated 21.10.1994, Additional Director, Ministry of Environment clearly mentioned that after grant of clearance in 1990, 'the status of implementation of various safeguard measures were lagging far behind', It was also pointed out that there is an urgent need to evolve monitoring mechanism for the Tehri Dam Project. On 5.12.1995 through an intervention application a leading Human Right Activist of Garhwal Shri Sunder Lal Bahuguna sought opportunity of participation in the case by producing on the spot studies of the impact of the Project on the environment and the people of the region.

98. On the orders of this Court made in this petition on 17.7.1996 the Government set up two Expert Committees; one on the safety aspects and other on the environment and rehabilitation aspects. The case stood thereafter adjourned several times awaiting the report of the Expert Committees. The subsequent developments were reported to this Court that the Reports of the Committees were under consideration of National Committee of seismic design parameters and an Inter-Ministerial Committee of Secretaries of the Department of Environment and Rehabilitation. On 27.10.1998, an affidavit was filed by Secretary, Ministry of Power Indicating that the State Government has given its concurrence to the Report of the Committee on Environment and Rehabilitation aspects.

99. On 2.2.1999 again an affidavit was filed by the secretary, Ministry of Power placing on record the Government of India's decision to implement the recommendations of both the Committees. In the said affidavit it was also stated that the Government had issued a final order accepting conclusions of group of experts on safety aspects. It is reported, that there is no necessity to undertake further steps as recommended by the experts viz. (1) 3-D Non-Linear Analysis of Dam to evaluate its performance against the maximum credible earthquake (2) Simulated Dam Brake Analysis suggested to be undertaken as a matter of abundant caution by the four experts. It may be mentioned that in the mean time the new State of Uttranchal having been formed comprising Garhwal in which the site of dam fads, the State of Uttranchal has been impleaded as the successor to the erstwhile State of Uttar Pradesh.

100. The learned counsel appearing for the petitioner and the intervener in their separate submissions mainly raised two questions based on the constitutional law and the statutory laws i.e. the Environmental Act and the Rules framed thereunder. The thrust of the argument is that from safety aspect and from adverse impact on environment and human life of the area and more so when conditions on which clearance to the Project had been given have not been fulfilled, this Court should interdict the Project at least till all conditions are fulfilled to the complete satisfaction of the department of Environment and this court.

101. It is undeniable that execution of river valley projects is an important element of growth and development strategy. The dams have become symbol of national development. The dams too have potentials of solving many economic problems. Control of floods, famines, food shortages, unemployment, urban water shortages and the power shortages are ail possible with the help of execution of such dams. These projects do have benefits but they have adverse environmental implications. Tehri dam project is in the valley on Himalayas, The Dam project would involve ousting of thousands of poor villagers and farmers living in the valley. The old Tehri town would be under submergence. The new Tehri town has been raised and being developed. The basic environmental issues are saving the flora and fauna that is abounding the region. The other aspect is of danger to the upstream and down stream human population because Tehri dam area and surrounding Uttarkashi area had already suffered successive earthquakes in short intervals and the area is known to be seismically unstable. It is held by the experts, as earthquake-prone. The Project will also destroy and has already

destroyed to a large extent forest tracks. Along the river deforestation has endangered the river itself and after impounding of water there would be large scale erosion of river bank. When such projects are undertaken, there are competing claims of technocrats and engineers eager to put the country on the path of development and environmentalists who see a serious danger to ecology and environment. These are the two conflicting claims and aspects which need Court's intervention for a balanced approach and consequential remedial action. The problem before the country with more and more dam projects being undertaken is how to make use of natural resources for improving human health, welfare and comfort without depleting or damaging them over a foreseeable period of time. A strategy for conserving or resources-effective use of non-renewable resources is the imperative demand of modern times, Whereas, minimum sustainable development must not endanger the natural system that supports life on earth, constant technological efforts are demanded for resources-effective production, so that sacrifice of one eco-system is counter balanced or compensated by recreating another system.

[Sec discussion on the topic to the Book 'Environmental Solution and Development' authored by Chander Pal at pages 198-201 & 236-237]

102. By river valley dam projects there are adverse up-stream impacts and down stream impacts on environment. The **upstream environmental and ecological impacts** of big dams are:

(1) Soil erosion (2) micro-climatic changes (3) loss of forests, flora & fauna (4) changes in fisheries, especially on spawning grounds (5) chain effects on catchment area due to construction and displacement etc (6) landslips, siltation and sedimentation (7) breeding of vectors in the reservoir and increase in related diseases (8) seismicity (9) loss of non forest land (10) water- logging around reservoir (11) growth of weeds.

Down stream impacts

103. The down stream environment impacts of the large dams are :-

(1) Water-logging and salinity (2) micro-climatic changes (3) reduced water flow and deposition in river, with related impacts on aquatic eco-system, flora and fauna (4) flash floods (5) loss of land fertility along with river (6) vector breeding and increase in related diseases.

104. These adverse effects have long term and irreversible loss of quality of human life and other creatures in the region. In order to meet such adverse impact on environment, a thorough environment impact assessment has to be made before the clearance of the dam. The Department of Environment and Forests has prepared detailed guidelines before a project is cleared. Wherever certain conditions for clearance are imposed they are to be strictly adhered to.

105. There are economic costs as well as social costs and environment costs involved in a project of construction of large dam. The social costs is also too heavy. It results in wide

spread displacement of local people from their ancestral habitat and loss of their traditional occupations. The displacement of economically weaker sections of the society and tribals, is the most serious aspect of displacement from the point of view of uprooting them from their natural surroundings. Absence of these surroundings in the new settlement colonies shatters their social, cultural and physical links.

106. The large dam projects are, therefore, required to be taken care by the Government with utmost concern of the poor and the deprived sections of the society who are necessarily to be displaced from their habitat and shifted to a totally new environment and way of life. The poor and the marginalized group in carrying out of a dam project suffer most because the natural resources-base of their survival are eroded and cash compensation of land at a different location many times does not fully rehabilitate them. The dams are built by public funds with the aim to satisfy the energy and water needs but what benefit ultimately it would give to the displaced people should also be taken care of. The conflicts over natural resources which frequently come to Courts are therefore conflicts over rights between haves and have nots.

107. The protest of ecologists, as is brought before us in this Public Interest Litigation, is not to be seen as obstructionists and anti-progress because the petitioners are actuated by desire to obstruct ecological destruction and to halt the process that results in progress for a few and hardships for many.

108. The Government can utilize the natural resources for common good but cannot be allowed to exploit or virtually plunder it in a manner to deprive those presently sustaining their lives on those natural resources and deprive the coming generations who have also a right of living on those resources. On these fundamental issues, there is a cleavage between technological experts, environmentalists and human rights activists. The Court is faced with an issue not easy to decide as to which Section of experts and environmentalists is right in their approach.

109. Ours is a constitutional democracy and we are called a "welfare State", "Welfare" does not mean that we have only to strive for fulfillment of political theory "Greatest good of greatest number". Our motto from *vedic times* has been sarva Jan Hitay, sarva Jan sukhay (benefit of all and happiness of all).

Our vedic prayer is

"Let all be happy, let all be sin-free, let everyone see good in everything. There should be no suffering anywhere."

110. It is, therefore, necessary that when a multimillion big dam project is undertaken to generate electricity and for providing water for irrigation and drinking, we should not leave those living by the side of river from generations to a suffering by displacement to a far off place which would deprive them of their life and life style. In the march of progress, the humblest and the weakest should not be left behind, Man living in the hills or valleys is dependant for survival on natural resources. To remove him and rehabilitate

him in the plains is taking a fish from the river and putting it into a artificial reservoir or an aquarium where it might survive but can never be happy. All efforts are therefore, required to be made that the displaced or oustees, who were hitherto getting benefits from the river for their survival, are adequately compensated by minimum possible disturbance to their life sources and style of life. In implementation of large river dam projects the utmost concern of the State should be the interest of the oustees. Before electricity is generated and drinking water is made available to urban population up to Delhi, care has to be first given to the needs and demands of the people who live in the hills and valley and face ouster. Before the reservoir is run to its optimum capacity to generate electricity and provide irrigation, the work of rehabilitation to the optimum satisfaction of the oustees must be completed. In this direction, the affidavit filed by the Ministry of Environment, does not vouchsafe that the work of rehabilitation has been completed to the satisfaction of not only the officials of the rehabilitation department but the oustees themselves speaking individually or collectively.

111. On behalf of Union of India and the Tehri Development Corporation, the separate reply on affidavit has been filed to counter the allegations made by the petitioner that the conditions granted in the order of clearance given by the Ministry of Environment have not been complied with. Learned counsel Shri Kirit Rawal made strenuous effort by taking us through to the several reports of the committees received from time to time. The technical data and other information collected in the matter of fulfillment of the conditions of clearance have all been placed before us. The submission made is that where the conditions imposed for clearance are to be Implemented *peri passu* with the engineering works, it is contemplated by the conditions themselves that side by side with the engineering work, the conditions to protect environment for treatment of catchment area, development of Common Area and rehabilitation will go on. In a project of such huge dimensions involving multifarious engineering and non-engineering activities, fulfillment of conditions laid down to undertake the Project have to be taken up simultaneously with the construction work of the dam and proportionately with the progress of engineering work. A Chart to show such progress has been submitted by Tehri Development Corporation to Impress upon this Court that although the time schedule has not been strictly adhered to because of the several difficulties and obstructions in the progress of the project, the conditions have been achieved in proportion to the engineering work already taken. It is submitted that Corporation is not guilty of non-fulfillment of the conditions and no prohibitive action is called for.

112. So far as the safety aspects of the dam are concerned, reliance is placed on the technical opinion of the experts, which says that a rock fill dam does not require three-dimensional studies to estimate its safety against earthquake. It is submitted that such computer based three-dimensional studies have been found to be only of theoretical value. Two-dimensional test already done fully ensures safety of the dam against an earthquake even up to 7 on Richter Scale. It is submitted that the two-dimensional studies of the dam is made on an assumption that the impact of earthquake of 7 or more Richter Scale would be uniform throughout the length and breadth of the dam. The experts have found such two-dimensional studies sufficient for the safety of the dam. Suggestion of

only one of the experts for conducting a three dimensional test only by way of an abundant caution has been found by the team of experts neither feasible nor desirable.

113. Attempt has also been made by filing item-wise comments that various recommendations of Hanumantha Rao Committee were in-depth gone into by Inter-Departmental Committee and most of the recommendations except a few have been accepted and also substantially implemented in proportion to the construction work already undertaken.

114. On behalf of the Corporation, a categorical statement has been made that until all the conditions of the clearance are not fulfilled, Tunnel Nos. 3 & 4 shall not be opened and the reservoir shall not be filled beyond its present water level. People presently living in the catchment area in Tehri town would not be evacuated till they are paid either cash compensation or land in lieu thereof, with shelter. The Corporation has also presented before us in the course of hearing status Report of fulfillment of the various conditions at the project site up to 31.01.2003.

115. The project for construction of large dams has been undertaken to provide electricity and irrigation facilities. From environmental and social prospective, large dams raise variety of issues. They entail massive incursions into natural eco-system and human settlements. When the project is undertaken, it is asserted that these incursions can be minimised by appropriate steps like Environmental Impact Assessment and preventive/ameliorative measures. It is with this purpose that the Environmental Act and rules require the project to take care of the adverse impact on environment and human population. Environmental clearance now is a legal requirement. A mechanism has also been evolved for evaluation of the environmental impact and its monitoring. Construction of large dams are accompanied by significant alterations in the up-stream and the down-stream, physical and biological environment. For building reservoirs, large track of forest lands get submerged. Water logging and salinasation affect the canal Irrigated land with varying degrees of severity. Several species of wild animals and plants become extinct. There is a likelihood of several diseases like Malaria spreading.

116. On the positive side, the alleviation of water scarcity leads to improvement in the health standard of people and reduction in diseases caused by shortage of potable water. Barren lands become green. New habitats are created for water birds.

117. In order to take care of the negative aspects of the large dams, the conditions for clearance generally require :-

1. Compensatory afforestation,
2. Treatment of catchment area to prevent prematured silt in other aspects.
3. Measures to prevent or minimise water logging and salinasation in the command area and around the reservoir.

4. Measures to prevent and minimise impact on health.
5. Safeguards against ill effects to the seismicity.
6. Ways of saving translocated wild plants and animals.
7. Providing alternative fuels to project labour and ladders for migrant fish to cross over the dam.

118. The Tehri Dam Project has obtained a clearance and a major portion of the dam has already been constructed. The catchment area has not been filled with water as the two diversion channels having gates have not been closed for filling the dam. This is the right stage when there is necessity of close monitoring, evaluation and reappraisal of work to ascertain compliance of the conditions and check adverse impact on environment as also ensure rehabilitation of the people displaced from the dam area and the did Tehri town. In the instant case, the Corporation claims that it has fulfilled the conditions *pari passu* with the engineering works. This high claim is with the admission that the time schedule in the condition of clearance has not been kept up. This is the proper stage when a thorough assessment by a team of experts in relevant branches is required to be undertaken for ascertaining whether the conditions of clearance have been fulfilled *pari passu* with the engineering works. If this is not done before the dam is allowed to be filled, adverse impacts caused on environment would be irreversible and would not be compensated because of the severe scale of the ecological intervention. The mistake that might have been done in the past with regard to other similar large and small dams should not be allowed to be repeated in the Tehri Dam Project which is different from other dam Projects in plains. Tehri dam being located in the Himalayas the adverse environmental impact would both be up-stream and downstream. Meticulous care and precaution, therefore, is required to be taken for a dam which Is being constructed on a high altitude area posing threat to down-stream population. If the safety aspects are not fully taken care of and the command area treatment is not done to the desired level or standard, the consequence may be catastrophic and beyond repair.

119. Only two aspects, in my considered opinion, need special attention and consequent directions by this court to the concerned authorities represented through the respondents in this case.

1. Safety aspect of the Dam :

120. Tehri Dam have been cleared for construction in a seismically, unstable, earthquake prone area in the valley of Himalayas.

121. The project was earlier not cleared on the opinion of the experts as a severe earthquake could burst the dam and destroy several important temples, towns and holy places like Rishikesh and Haridwar. There are other thickly populated towns and villages down stream. The members of the Environmental Appraisal Committee (EAC) which has an expert body within the Ministry of Environmental and Forests had earlier unanimously

concluded that the Tehri project did not merit environment clearance and should be abandoned. Thereafter, a Committee of Secretaries of concerned Departments was constituted which did not agree with the EAC's recommendations. A dissenting note was submitted by expert Dr. V.K. Gaur to the Committee of Secretaries. The Committee then assigned reassessment of the task of safety to the department of mines. Professor Jai Krishna an earthquake engineer but not a seismologist opined in favour of the project. The foreign expert Professor James D. Brune was a seismologist who did not favour the project due to safety aspect involved.

122. On safety aspects the matter was brought to this Court in case reported in *Tehri Bandh Virodhi Sangarsh Samiti and Ors. v. State of U.P. and Ors.* [1992 (supp) 1 SCC 44] by environmentalists. This Court while refusing to interfere with the matter went by the opinion of Earthquake Engineer Professor Jai Krishna. In his own language, "The design of the Tehri Dam as suggested by Indian and Soviet experts was quiet safe against the strongest earthquake in the region".

123. The petitioners in this case on the basis of expert's opinion of Professor Jai Krishna and foreign expert James D. Brune submitted that as an extra precautionary measure 3-D Non-Linear Analysis of the dam should be undertaken to evaluate its performance against the maximum possible earthquake. A simulated Dam Break Analysis (DBA) has also been suggested by the four experts as a matter of abundant caution.

124. On behalf of the respondents the counsel separately appearing for different departments and the project authorities have taken uniform stand that 3-D Non-Linear Analysis is neither essential nor feasible for want of necessary competent expertise in India and even abroad. It has also been argued that challenge to safety aspects have been negatived in the earlier decision of this Court rendered in 1992 and the project was allowed to go ahead and by now has progressed to a very large extent.

125. On the safety aspect of the dam particularly when the location of the dam is in a highly earthquake prone zone in the valleys of Himalayas, alt additional safeguards are required to be undertaken on the 'precautionary principle' as contained in 'the RIO Declaration on Environment and Development' taken in the United 'Nation conference held in January 1992 to which India is a party. The precautionary principle in RIO declaration reads :

"In order to protect the environment, the precautionary approach shall be widely applied by State accordingly to their capabilities. Where there are threats of series of reversible damage lock of full scientific certainty shell not be used as a reason for postponing cost effective measures to prevent environment degradation".

[Emphasis supplied]

126. The precautionary principle accepted by India being a party and signficatory to international agreement and understandings in the field of environment has become part of domestic law i.e. Environmental (Protection) Act. The Governmental authorities in

India cannot be permitted to set up plea of scientific uncertainty of 3-D Non-Linear Analysis of the dam. On the safety aspect the pleas like *res judicata* based on earlier decision of this Court cannot be allowed to be raised when further developments and events in the course of the project require further precautions to be taken before filling the dam to the optimum capacity. It is not the case of the respondents that 3-D Non-Linear Analysis of the dam cannot be undertaken with the assistance of foreign experts on the subject. To take care of all eventualities of damage to dam by earthquake. 3-D Non-Linear Analysis of the dam suggested by four experts as a matter of abundant caution must be undertaken. It is only after 3-D Non-Linear Analysis of the dam is completed and the opinion of the experts on the safety aspect is again sought that further impoundment of the dam should be allowed. In *M.C. Mehta v. Union of India* (Trapezium matter) this Court has applied 'Polluter pays principle' and 'Precautionary principle' of International law as law of the land of this country, India being party to the United Nation Conference and signatory to International Declarations and Agreements.

Requirement of the provisions of the Act and the conditional clearance

127. Before taking up the rehabilitation aspect for issuing necessary directions it is required to be stated that in accordance with the provisions of Section 3 of Environment Protection Act, 1985 and Rule 5 of the Environmental Rule 1986, the Tehri Dam Project was granted conditional clearance. A notification dated 27th January, 1994 has been issued under the Act and the rules on Environmental Impact Assessment of Development Project, Under the said notification an Environmental Impact Assessment is required to be made by the Impact Assessment Agency. Without a proper environmental impact assessment no project can be accorded environmental clearance. In the present case the environmental clearance was given on 19.7.1990 before the issuance of the notification on 27th January, 1994 on the Environmental Impact Assessment of Development Project. Nonetheless, the directions and guidelines contained in the said notification have to be applied even to the existing dam projects and a strict monitoring of the impact of the project on the environment has to be done by the Central Government through its Ministry of Environment and Forests. The clearance to the project was given in the year 1990 on amongst others the following specific condition "completion of status, formulation of action plans and their implementation will be scheduled in such a way that their execution is *pari passu* falling which the works could be brought to a hair. This condition was enforceable under the provisions of Environment (Protection) Act 1986.

128. The letter of the Secretary of Ministry of Environment and Forest to the Secretary Ministry of labour dated 12.4.1991 clearly shows failure on the part of Tehri Haydel Development Corporation (THDC) to comply with the conditions granted for environment clearance, The Ministry has expressed total dissatisfaction on the compliance. The petitioners gave a notice under Section 19(b) of the Act on 5.9.1991 to the Authorities pointing out that non-fulfillment of the conditions provided in the environment clearance within the stipulated time-frame has resulted in lapse of said clearance and the work of project should be stopped forthwith. On 20.10.1991 earthquake of 6.6 on richter scale hit Uttarkashi causing immense destruction of property and life. The uncompleted dam also suffered trauma but no damage was reported. Even during

pendency of this petition successive earthquakes shook Uttanchal regions in the vicinity of dam site. Thereafter, the petitioners had been constantly writing to the authorities that for want of non-fulfillment of the conditional clearance the project construction work should be stopped. There is on record a note dated 21.10.1334 of Additional Director or Ministry of Environment recording that although the environment clearance was granted to the project in the year 1990, 'the status of implementation of various safeguard measures were lagging far behind'. It was also pointed out in the note of the Director that there was an urgent need 'to evolve a monitoring mechanism for the Tehri Dam Project'.

129. Where the requirements of law as contained in the Act, the Rules and the notification issued thereunder contemplate imposition of conditions for clearance to a project to minimise its adverse impact on environment, the Authorities granting such clearance possess a power coupled with duty and obligation to ensure fulfillment of the conditions on the basis of which the environmental clearance is granted. We are sorry to note that in the face of so may conflicting expert opinions on the project undertaken in a highly earthquake prone region the conditional environmental clearance was granted without monitoring the work of the project to ensure fulfillment of those conditions.

130. A strict vigil on fulfillment of the conditions of environmental clearance was required by the Ministry of Environment and Forest and stringent action should have been taken against the Authorities for not adhering to *pari passu* condition of clearance, in the latest affidavit filed by the Ministry of Environment and Forest it is promised that in future strict monitoring of the fulfillment of the conditions granted for environment clearance would be done. Granting a conditional clearance is not a mere formality. The power to grant clearance even though with conditions was accompanied by duty on the part of the Ministry to have effective check on the progress of project and ensure fulfillment of the conditions in accordance with *pari passu* clause. Since the Ministry of Environment and Forest has failed to discharge its duty of exercising proper check on the fulfillment of *pan passu* clause of conditional clearance, it is necessary to provide an Independent mechanism through a forum of Inter-departmental authorities and experts so that the project presently undertaken by the Corporation with the aid, assistance and finances provided by the States, Central Government and the World Bank is allowed to progress and be completed strictly on fulfillment of the conditions on which environmental clearance was granted.

2. Rehabilitation aspect

131. The Ministry of Environment and Forests has filed an affidavit before us showing the present position of progress in resettlement and rehabilitation activities undertaken as part of fulfillment of the conditional clearance of the project. It may be recalled that the Ministry of Welfare of Government of India in the year 1985 initiated a Rehabilitation Policy. It came to be approved only in the year 1997. Thus the ***National policy, Packages and Guidelines for resettlement and rehabilitation*** accept the following principles :-

1. Displacement should be minimised. So people displacing projects should be the last option after studying non-displacing and least displacing projects, and if this is the only alternative.
2. The public purpose based on which people are displaced or otherwise deprived of their livelihood should be defined. Prior informed consent to be affected by it should be mandatory after the project is explained to them and if they see that is according to the public purpose thus defined properly.
3. Replacement value to be the norm for compensation, against the present norm of market value which is totally inadequate.
4. Right to life with dignity enshrined in Article 21 of the constitution should be respected. So, the displaced persons should have a better lifestyle after displacement than before it because they are paying the price of national development.
5. Displaced Persons (DPs/PAFs) should be the first beneficiaries of any project.
6. Rehabilitation is mandatory and should **go on side** by side with the project.
7. Land for land is recommended to all and is mandatory for tribals, Compensation is to be provided for common property resources and forest lands that may be acquired from their dependants.
8. The DPs/PAPs are defined in a way as to include not only land owners but also those who depend on it without owning it, and those who have common property resources as their sustenance.

132. This Court in the case of *Karjan Jalasay Yojana Assargrasth Shakhar Ane Snagharsh Samiti v. State of Gujarat* has held thus:

"Simultaneously with taking possession of the acquired land from any person in occupation of it, such person shall be provided either alternative land of equal qualify but not exceeding three acres in area and it that is not possible, then alternative employment where he would be assured a minimum wane. No possession of any part of the acquired land shell be taken from any person unless and until he is either provided with alternative land or alternative employment which is not temporary in character so that he and the members of his family do not remain without means of subsistance if for any reason the State Government is not able to provide alternative land or arrange for alternative employment, the State Government will subject to the same exception, pay to the head of the family at the latter" place of residence compensation equivalent to minimum wage every fortnight during the period alternative land or employment is not provided."

133. The above directions of this Court in the case of *Karjan Jalasay* (supra) were based on the factual realities that for most marginal farmers and tribals monetary compensation

for acquisition of land can never be sustainable source of dignified living. A new place of alternative land of equal quality should be given to those dispossessed from land due to acquisition for public purpose. In the last affidavit submitted by Ministry of Environment and Forests before us to show the status of the progress of rehabilitation as on 3rd February, 2003, the figures disclose that out of total 9,239 rural affected families cash compensation is not paid to 1,943 families and 250 families affected by Koteswar Dam have also not received cash compensation.

134. For providing agricultural land to farmers who have been ousted it is stated that land is being acquired down the valley in the vicinity of Dehradun city. The Government has thus been involved in exercise of rehabilitating the dam oustees on acquired land from other land holders who in turn will have to be ousted. This will give rise to chain reaction of making other people landless. The process has not yet been completed and according to the affidavit of the Ministry itself the work of resettlement and rehabilitation is underway.

135. When natural resources are exploited in a big way for big projects by State with all sincerity and good intentions for general common benefit, social conflicts arise as a natural adverse consequence. Generally the conflicts arise between marginal farmers, peasants and other landless persons who survive on natural resources and those who are better off, rich or affluent and who desire to undertake agriculture and industry. When river projects for dams are undertaken to generate electricity and improve irrigation facilities, conflicts arise between **people living up-stream** who have to necessarily lose their source of living and habitat and those **living down-stream** who need water and electricity for their homes, Industries and agricultural fields. When such social conflicts between different social groups i.e. up-stream population and down-stream population, between rural population and urban population, between poor surviving on natural resources and others needing natural resources for further development arise what should be the duty and priorities of the State and its authorities who have undertaken the projects? When such social conflicts arise between poor and more needy on one side **and** rich or affluent or less needy on the other, prior attention has to be paid to the former group which is both financially and politically weak. Such less advantaged group is expected to be given prior attention by Welfare State like ours which is committed and obliged by the Constitution, particularly by its provisions contained in the Preamble, Fundamental rights, Fundamental duties and Directive Principles, to take care of such deprived sections of people who are likely to lose their home and source of livelihood.

136. Mistakes in resettlement and rehabilitation of people ousted by other similar Projects committed in the past have to be avoided. The construction of dam cannot be allowed to proceed and be completed leaving the oustees high and dry.

137. The oustees of Tehri Dam Project who are used to valley life in Himalayas are proposed to be resettled and rehabilitated in newly built Tehri Town and those depending on forest and agriculture are proposed to be given cash compensation or land down-stream near Dehradun city. The Ministry of Environment and Forests (MoEF) in their last

affidavit has given a status report to show that resettlement work is in progress but not completed. In the affidavit it is promised as under:-

"The Project authority shall ensure that prior to closing of diversion tunnels T1/T2 for impoundment of the Reservoir; evacuation, resettlement and rehabilitation are completed in all respects. In addition, the catchment area and treatment of direct draining areas etc. shall be completed. The Project Authority shall obtain clearance from MoEF before closing the outlet at EL 700 m."

138. The RIO declaration of environment and development in the United Nations' Conference held in June 1992 to which India was a party and signatory and on which the Environment Protection Act, its Rules and Policies are modeled, obligates the Authorities of India by the norms fixed in International and Domestic Law that "the environmental and natural resources of people under operation, domination and occupation shall be protected," A mention has already been made above of the latest rehabilitation policy framed by the Government of India and relevant part has been quoted. These legal and policy obligations are enforceable against the State.

139. In my considered opinion, therefore, the present status of dam project, keeping in view the *pari passu* condition on which "environmental clearance" has been granted by MoEF, calls for issuing following directions to the respondents who represent various Ministries & departments of Central and State Government as also the Corporation to which the project has been entrusted for implementation.

(1) The Central Government in terms of the recommendations of **Expert Committee for Environmental Impact Assessment** as contained in Schedule III of the Notification dated 27th January, 1994 issued in exercise of powers under Sub-section (i) and Clause V of Sub-section (2) of Section 3 of Environment (Protection) Act 1986 read with Clause (f) of Sub-Rule (3) of Rule 5 of Environment (Protection) Act 1986 shall constitute a Committee of Experts and representatives of NGOs (if not already constituted) for the purpose of investigating, ascertaining and reporting whether the *pari passu condition* laid down in the environment clearance of the Project have been fulfilled or not by the authorities of the Project. The aforesaid committee will inspect and report on the status of the work to the Central Government every three months and in case the conditions, as laid down in the clearance, are not fulfilled recommend the remedial or corrective measures/actions.

(2) To take care of the safety aspects, until 3-D Non-Linear Analysis and Dam Break Analysis are completed as recommended by the Committee on safety and the result assessed by the aforesaid Expert Committee is submitted to the Central Government, diversion tunnels T1/T2 for impoundment of the Reservoir shall not be closed.

(3) The Expert Committee for environment Impact Assessment constituted under Schedule III of Notification dated 27th January 1994 will also look into and submit status report on the progress of resettlement and rehabilitation measures. There will be no

impoundment of the Reservoir until resettlement and rehabilitation work is fully completed in all respects,

(4) An effective Grievance Redressal Cell headed by an independent expert in the field or social science shall be set up by the State Government with the help of Central Government for solving rehabilitation and resettlement problems of the oustees of the Project. The Grievance Redressal/Cell shall submit its status report every three months to the Expert Committee constituted under Schedule III of the notification (supra).

140. This writ petition succeeds to the extent of directions made above.

141. All connected matters and applications also stand disposed of. The petitioners shall be entitled to all costs incurred by them in prosecuting these petitions in public interest from the respondents who will share them in equal proportion.

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