



## Lead Piece

Letter to the Prime Minister on climate change:

## NAPCC and water mission are non-serious and worse

As the government started the process of finalizing the eight missions under India's National Action Plan on Climate Change announced in June 2008, nineteen groups from all over India got together and wrote a letter expressing serious concerns over the process and content of the NAPCC in general and National Water Mission under NAPCC in particular. The letter dated July 27, 2009 raises some very important issues that will continue to affect us for many years to come. Hence we are reproducing the letter in full here.

To,  
 The Prime Minister of India  
 7, Race Course Road, New Delhi 110 001

Respected Sir,

We understand that you & the Advisory Council on Climate Change appointed by you are in the process of finalizing the India's National Action Plan on Climate Change (NAPCC) and the various missions under the same. We are writing this letter on our concerns regarding the National Water Mission under the NAPCC, as also some concerns about the NAPCC.

**NAPCC: Issues of Process** There was no participatory or transparent process in formulation of NAPCC or even the specific mission plans. When this issue was raised before the joint secretary, Union Ministry of Environment and Forests in September 2008, he said that participatory process should be taken up during formulation of the mission plans, but that too has not happened. This cannot be an acceptable situation in any democracy.

**Hiding behind the Poor** The Indian government rightly says that they have no obligation to reduce GHG emissions, following the 'common but differentiated responsibility' as described in the United Nations Framework Convention on Climate Change. The question is, why should the same principles of common but differentiated responsibility and equity not be followed within India?

**Limited solutions** All the solutions offered across the world so far suffer from the limitation in that they do not advocate reduction in consumption by the rich, including

the rich in India. They all seem to suggest the current consumption levels and even further growth in the same is possible to be sustained by various measures, including improving efficiency, shifting to renewable sources of energy and electricity and by adopting some new technologies. While Indian government claims it

is serious about mitigation, in practice the entire development trajectory and specific policy measures such as promoting cheap flights and finance for cheap

and luxury cars promotes the growth of emissions, and largely directed to benefited the rich. Can the earth's environment sustain this if all the people of the earth were to aspire for the level of consumption now being used by the US and Western Europe?

Continued on p 2

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## INDEX

NAPCC and National Water Mission are non serious and worse	1
Kaleghagh Dam: Displacement without any benefits	6
Hirakud Dam: Fifty Mournful Years	7
Why are these facts not sacred, Mr Shekhar Gupta ji?	12
NHPC does not deserve award for Environment Excellence	13
Review Crucial decisions of Abraham Committee	15
Book Review: Resistance to Water Privatisation	19
The Yamuna: Dr Sreedharan's Errors	20
Worst Drought of 60 years?	21
West Seti HEP faces more serious problems	22
Adv. EOI invited by BRVDA for Bhagirathi Master Plan	23
Publications available with SANDRP	24

Continued from p 1

**No Targets for emission reduction<sup>1</sup>** The NAPCC has no targets for emission reduction for India, except saying that India will not exceed the levels of emissions of the developed countries. India would be suffering greater impacts of climate change than US, Europe or even China. Within India, the worst sufferers would be the most vulnerable sections depending on the natural resources for their daily needs, including the adivasis, the coastal communities, the mountain communities, the rainfed farmers, the land less and the marginal and small farmers, the dalits, the women and the poor. The contribution of these vulnerable sections of our population is very little or negative. It is in the name of development of these people that Indian government is saying we need to be allowed to increase emissions. The trouble, Sir, is that these people are not participant selecting the development options. Nor are these people benefiting from most of the mega projects of development. On the contrary, they are suffering further deprivations of their meager resources. If the development of these sections, including providing access to electricity to them is the objective, then there are options available that does not require India to continue to increase emissions. In fact, for the sake of these vulnerable sections, the government of India needs to commit nationally (NOT internationally) that India will cap its emissions, the target can be decided through a participatory process.

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**CDM Projects:** In principle the claimed benefits from CDM projects and carbon trade projects are suspect. Therefore, our government should dissociate itself from it as soon as possible. But as long as it continues as part of the Kyoto Protocol, some minimum steps need to be taken to bring it under public scrutiny. Firstly, most projects that have entered the CDM (Clean Development Mechanism) projects pipeline from India can not be described as part of sustainable development, nor do they deserve CDM credits. It is noteworthy that most of these are controlled by corporate bodies that are

<sup>1</sup> Same letter has also been sent to members of the PM's advisory council on climate change, to the members of high level steering group and various sub committees of the National Water Mission, to the members of the Planning commission, ministers and secretaries of the concerned ministries, large number of members of the Parliament. Colleagues from endorsing organisations have also sent the letters to the concerned at the state level.

responsible for lion's share of India's corporate emissions. While the practice of giving single window clearance to such projects must stop, we need to make the host country clearance process transparent, accountable, participatory and credible. Moreover, at least 75% of the credits from the credibly certified projects should go to local development projects.

**THE WATER SECTOR**  
Some important recommendations in this sector include the following.

**Opportunity to reverse wrong policies** The climate change has provided us a unique, once in a century kind of opportunity to assess, review, reflect on our current policies and reverse them where we have gone wrong. This opportunity must not be allowed to go waste. We have a water crisis on our hands even without the climate change, with vast populations still not able to get water for basic human existence. More areas are slipping into problem zones as we are not able to ensure source sustainability, because of the wrong kind of priorities we have been following in water sector. Unfortunately, the National Water Mission and the NAPCC largely is a collection of business as usual projects, dominated by the misguided and wrong agenda of more big dams, more big surface storages, more large hydro projects, interlinking of rivers and so on.

**Participatory process for NWM** As noted above the proposed NWM has been formulated through a

completely non participatory and non transparent process. A time bound, participatory process for formulation of National Water Mission, National Mission for Sustainable Agriculture and other missions should be taken up immediately. Credible panels can be set up for taking up this exercise.

**Knowledge Base** Our knowledge base on the issue of impacts of climate change on water sector is poor. Immediately, we need to come out with a report on the state of the knowledge in this sector and we need to have annual updates of this report.

**National Water Security Act** We urgently need an act from 3 perspectives: Human Right perspective, including health perspective, ensuring provision of clean water required for drinking and domestic water use for all as a right; from the livelihood perspective, ensuring the water required for livelihood for all and from the ecologic

perspective, ensuring protection of rivers, wetlands, lakes, water bodies, etc.

**Review and Reform Water Law** There is an urgent need to review prevailing water related laws in India from the perspective of environmental sustainability and social justice. Current laws are totally devoid of an ecological, integrated approach and do not reflect the basic principle that water is a common good and a precious natural resource. The reform process needs to be undertaken in a highly participatory, decentralized, and democratic way.

**Common Property Resource** Water is essentially common property resource, the state, where it has a role, is supposed to act as a trustee of this resource, in the interest of the people's basic needs, in a democratic manner, which is not the situation today. The proposition in NAPCC and NWM proposal for developing "new regulatory structures, combined with appropriate entitlements and pricing" and also the urban water regime seem more like a push towards privatization of water resources, which is not helpful, appropriate or acceptable.

**Governance** The fundamental problem plaguing this sector is lack of democratic governance. We urgently need to set up legal and institutional mechanisms to ensure bottom up, participatory, accountable governance for rivers, for pollution control, river action plans, for groundwater, for environment management, irrigation systems, lakes, rivers, wetlands, embankments, canals, pipelines, and other related water infrastructure. Such project/river specific committees should be statutory bodies with powers to make necessary mandatory orders with respect to the functioning of the projects.

**Reservoir Operation Committees** To ensure proper & optimum functioning of the existing and under construction reservoirs in the interest of the people, each reservoir should have a reservoir operation committee, in which at least 50% members should come from the local communities. As a step in that direction, the reservoir operation rules & actual reservoir operation details (inflows, outflows, levels, capacities, & anticipated inflows) should all be made public *suo moto* on daily basis for each large dam.

**Irrigation Efficiency** The objective of increasing the irrigation efficacy is much needed and laudable, but such attempts in the past has not succeeded because of the top down, unaccountable governance systems. Such attempts have left the governance of the larger systems

outside the reach of the water users. Unless this is changed fundamentally, such attempts won't succeed.

**Groundwater** We need to understand that groundwater is India's national water lifeline and will remain so for

many years to come for all sorts of water use. If we want to ensure sustainable existence of this lifeline, we need work on three fronts: Firstly, ensure the sustenance of the existing groundwater recharge systems including local water systems & their catchments, wetlands and rivers; secondly, give top priority to creation of more such systems and thirdly, put in place credible, legally enforceable community led regulation. At the same time, the government needs to promote greater access of groundwater to the underprivileged, particularly dalits and other backward classes.

**Rivers, wetlands and water bodies** Indian culture and religions are supposed to value Rivers, but our governance system has no value for rivers flowing with

freshwater all round the year. To bridge this serious lacuna, we need a law for ensuring that perennial rivers have freshwater flow all round the year, sufficient for various purposes including groundwater recharge, social and environment needs. Similarly we need law for protection of wetlands, water bodies and catchment of water bodies. We also need

to declare some of the river/ tributaries in each state as NO GO zones, where no dams/ barrages/ hydropower projects are allowed.

- Given the link between forests and fresh water flows in rivers, there is an urgent need to take up catchment area eco restoration of at least the highly degraded river basins as a long term strategy, such restoration would also help the cause of climate.
- There is also a need to have comprehensive, credible assessment of basin wide potential of water resources development through watershed development, groundwater recharge, local water systems. Such systems are efficient in harvesting rainwater, in ensuring groundwater recharge and are in fact more appropriate from employment

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generation point of view. Such an assessment does not exist for any basin, it can be started with say Ken and Betwa rivers basins. In the context of climate change, such options should have top priority.

- Local water systems are efficient in harvesting rainwater, in ensuring groundwater recharge and are in fact more appropriate from employment generation point of view. Such systems, through examples like Hirwe Bazar in Maharashtra, Laporla in Rajasthan and numerous other places, have shown that they are the best adaptation measures even in the climate change context.

**Agriculture** Organic farming practices must be incentivised, chemicals based farming dis-incentivised. Increased organic matter in soil will also increase the water security for the rain-fed farmers, since it will help increase the moisture holding capacity of the soils, in addition to having mitigation effect from climate perspective. Water saving, high yielding and low input requiring practices like the System of Rice Intensification should be taken up in right earnest at all the appropriate locations, including North West India. **In fact, SRI can be of immense help in the current situation of uncertain monsoon rains as it would help spread the limited irrigation water over long distances, reduce the crop maturing period and reduce seed requirements by upto 90%.** Water intensive crops and cropping methods should be discouraged.

**Urban areas** Big cities are increasing going farther and farther away for tapping water resources for its seemingly insatiable thirst. This is not sustainable, equitable or climate friendly. Cities must be made to use its available local sources, including rainwater, local water bodies and groundwater in a sustainable way, the waste water must be treated to recyclable level and a cap must be put on how much water they can get. The massive Renuka dam on Giri River in Himachal Pradesh, being proposed for the water requirement of Delhi, is an example of inappropriate water project for an already water rich city. For example, the Planning Commission document *Integrated Water Management*

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*Policy and Actions* dated May 2009 says, "Delhi, for instance, has more water per capita than Paris."

**Decentralised waste water treatment** Decentralized waster water treatment facilities should be the norm. The decentralized systems would also be less energy intensive, less cost intensive, more efficient and is actually likely to lead to more recycling of the treated water.

**Mainstreaming Climate Change** The environment impact assessment and

decision making process of the water reservoirs in India should include an assessment of the possible impact of climate change on such projects and also the possible contribution of such projects to climate change, including the assessment of methane emission from such projects. On this last issue, India should take up a study of methane emission from existing reservoirs. In the decision making process, relative carbon footprint of different water options should also be an issue of consideration.

**Approach** The approach towards water must not be a purely supply side response, in any case not through more large projects. Equity and access to water for all through rights based regime and democratic, bottom up, management must be a central plank for any plans.

**National Water Policy** For the formulation of a new NWP, a detailed participatory exercise should be started immediately. The NAPCC recommends such review only in consultation with states, but this has to be a bottom up, participatory process.

**Priority for Maintenance of existing infrastructure** Make available adequate funds in the budget as a first

priority to maintain the existing water related infrastructure before spending money on new schemes. For example, there is a need to ensure that water bodies, reservoirs and canals do not get silted up and therefore there is a need to make adequate investments for catchment area treatment of existing large, medium and small dams and also for regular desilting of canals and smaller systems. Similarly maintenance of the canal infrastructure to ensure optimum use of created infrastructure should be given a top priority. To ensure that all this actually gets done in a transparent and

accountable way, the governance in water sector will have to be changed so that the local people have decisive say in planning, decision making, implementation and operation of the systems.

**Weeding out unviable ongoing projects** There are a very large number of ongoing big irrigation projects, many of them are non viable or amounting to zero sum game as the basins or sub basins where they are situated are already over exploited. They are a drain on the economy & there is a need for a credible, independent process to ensure that unviable & undesirable projects may be weeded out or scaled down appropriately.

#### **Environment Impact**

**Assessment** Our EIAs are notorious for numerous fundamental failures, including blatant plagiarism, falsehoods, and inaccuracies. Firstly, the EIAs must be made available to local people in their languages. Secondly, all large dams, irrigation projects, flood management projects, hydro projects above 500 KW must go through the EIA and public hearing process.

**Lack of integration across NAPCC** There is no attempt to ensure cross sectoral integration across the various parts of NAPCC, missions and development path. Thus while the mission for Himalayan ecosystem talks about the vulnerability of millions in mountain environs, the ongoing and proposed initiatives on hydropower projects and the infrastructure that comes along with it is not only threatening the lives and livelihoods of these people, it is also hastening the process of glacier melt through direct impacts, through change in climate in the mountains and also through some local positive feedback mechanisms. Similarly, the initiatives on thermal power projects and mining (including coal, bauxite) proposals are threatening the water resources at numerous sites. The inappropriately undertaken massive agenda of road construction in mountains is cutting of local water streams, which are local people's

lifeline. Inappropriate mining is destroying both surface and groundwater. There are no policies for appropriate citing of industries, considering the situation of land, water, forests, climate implications and so on.

**Big cities are increasing going farther and farther away for tapping water resources for its seemingly insatiable thirst. This is not sustainable, equitable or climate friendly. Cities must be made to use its available local sources, including rainwater, local water bodies and groundwater in a sustainable way, the waste water must be treated to recyclable level and a cap must be put on how much water they can get. The massive Renuka dam on Giri River in Himachal Pradesh, being proposed for the water requirement of Delhi, is an example of inappropriate water project for an already water rich city.**

We would be happy to meet you to explain this further, if necessary. Thanking you for your attention, we look forward to your detailed response.

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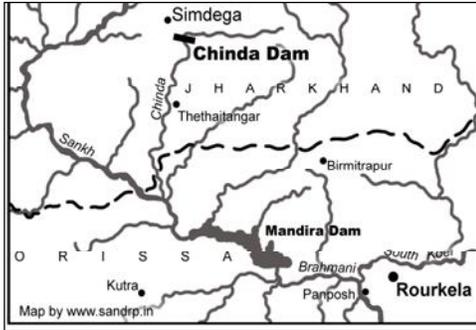
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## Kaleghagh Dam in Jharkhand: Sad story of displacement without benefits

The 'Kaleghagh dam' (called Chinda dam in CWC directory, see the adjoining map) is at the most beautiful place on Chinda river in Simdega



district of Jharkhand, 4 km from the district headquarter. It is a very good tourist place in the district with lovely reservoir surrounded by multiple hills which attracts a lot of tourists. There is a plateau in the dam where there is a small and beautiful park. Besides, the district administration provides the facility of boating and a hotel is also constructed.

But how many really know that this beautiful place is made on the grave of Adivasis (indigenous people)? Their only livelihood resource that was land had been snatched away from them during the construction of the Dam. The promises made for providing jobs, adequate compensation and rehabilitation packages were not fulfilled. The owners of the lands were left to die in the name of 'development'.

The Kaleghagh dam was constructed in 1980 as a minor irrigation project of the irrigation department with the aim of irrigating land of the Simdega block, where three villages – Bernibera, Bara Barpani and Bhudhratoli were completely submerged for the dam. The three villages had population of approximately 3500. These villages were populated by Kharia, Munda and Oraon Adivasis.

Interestingly, the project failed to achieve its objective. Presently, the water reaches to only one village – Meromdega and the water supply to Tukupani, Jambahar and other areas has been stopped since a long time. Thus the irrigation project uprooted the Adivasis of three villages but only one village is being benefited. Secondly, the Simdega Notified Area Committee supplies the drinking water to Simdega town from the dam but the displaced people, those who have been living near by the Dam get supply water neither for drinking nor for irrigating their a few pieces of land.

The Bernibera village situated at a distance of 5 kilometers in the eastern part of Simdega lost its origin, meaning and identity, which had a historic origin made of two words – Berni and Bera. The 'Berni' is the name of an herbal plant, which is used as a medicine to cure fever, and the plant is also used to make a rope. Another word 'Bera' is a Kharia (language of Kharia Adivasis) word meaning a big piece of fertile land. Hence, there were big pieces of fertile lands and Berni herbal plants were also a plenty near the village therefore the village

was named Bernibera. The people of the village used to yield plenty of wheat, paddy and vegetables. But when the dam was constructed the big pieces of fertile lands submerged in the dam and the herbal plants also disappeared from the area.

70 years old Mangaldas Kharia is one of those unfortunate victims of Bernibera village faced displacement for the Kaleghagh Dam. His family was well-off as his father (Jakarias Kharia) had 20 acres of fertile land in the village and he was also working as a teacher in a government primary school. He had also purchased another 10 acres of land in a village called Lathakhamhan, where he used to teach in a school with a dream of making a good life for his sons (Mangaldash and Isaac). Since he had two sons therefore he was willing to settle them in two different places so that there would be no chances of any conflict between them. But his dream was washed away by the dam. His land of Bernibera village was submerged in the dam and he was given merely Rs 11,000 as compensation.

Finally, the family had no option than settling down in Lathakhamhan village, where the family had 10 acres of land. The land of Lathakhamhan village was divided between two brothers (Mangaldas and Isaac), which led to a division in the family. Though Mangaldas Kharia survived because he got the government job as teacher in the place of his father but his younger brother Isaac suffered the most. Later on Isaac and his wife were brutally murdered and their four kids left the village and are living elsewhere. They are still not able to settle down. Thus, a well-off family was destroyed in the name of a development project and Mangaldas Kharia is still fighting for the compensation for the land. He recalls that how the women who were protesting against the dam had been kept in the Hazaribagh Jail for 3 days in 1980.

The villagers had started protesting against the land acquisition by shouting a slogan 'No to Dam' but the protest was stopped when the police atrocity was inflicted on the people. In 2007, the displaced people again started a fight with the government for the jobs and compensation promised during the land acquisition for the dam. 70 Raiyats (land owners) including Mangaldash Kharia have filed a case in Gumla Civil Court claiming for the jobs and compensation for their lands. But will the justice be delivered to them? They have paid the heavy price in the name of development but get no opportunity to enjoy its taste of its fruits. Ironically, the government of Jharkhand has signed 102 MoUs (Memorandum of understanding) with the corporate houses for establishment of steel plants, mining industries and power plants without addressing the issues of more than 15 lakh displaced masses. Are we still advocating for this kind of unjust development processes in India?

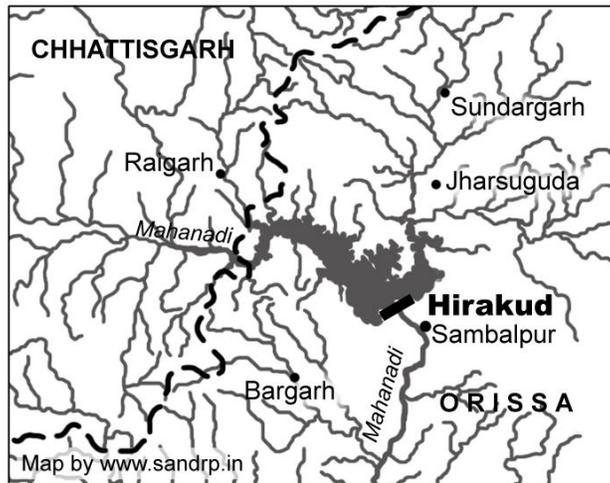
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## Hirakud Dam: Fifty Mournful Years

Government's false promises, poor management of Hirakud dam and the dissatisfaction of farmers, displaced persons and the locals have led to the people's movement against the dam. The following essay not only brings into limelight the mismatch between objectives behind the construction of the dam and the actual output, but also holds "Hirakud Dam" as a true example of recklessness of the Orissa government. The dam, which was essentially planned for flood management in the delta of Orissa, irrigation, fishing and hydropower production, now quenches thirst of industries at the cost of the aforesaid objectives. This poses greater threats to the livelihoods of thousands of farmers who depend upon the water from the Hirakud reservoir. The dam which took shape from the tears of one and half lakh people, now provides water to a handful of industries - a satire to humanity, one can say.

**The temple of modern India** On 8<sup>th</sup> November 1945 Late Dr BR Ambedkar presided over a meeting in Cuttack. In this meeting seeds for a multi-purpose dam project is sown for the over all development of Mahanadi river valley. As a result of this, projects were proposed at Hirakud, Tikarpada and Naraj. The core objective of these projects was to save Orissa from the clutches of repeated floods and famines. And the injuries from the great famine in 1865-66 and the flood in 1937 were still fresh. Only within the period 1868 to 1940 Orissa witnessed 63 floods. So the purpose behind constructing Hirakud dam was to prevent Orissa from flood. 1.83 Lakh ha land and reserved forest sank under the waters of the reservoir to construct the dam among which only cultivated land amounted to 1.23 Lakh hectares. In the process 26501 families of 249 villages in Orissa were displaced. 34 villages of the then Madhya Pradesh were displaced, too. On 15 March, 1946 Mr Louise, the then Governor of Orissa laid the foundation stone for Hirakud dam.

Karunakar Supkar, an engineer by profession and an eminent activist from the local area states that in the period of construction of the dam only Land Acquisition Act was implemented and no policies for the



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rehabilitation and resettlement of the displaced people were framed by the state government. In the months of April and May of 1955, 57 villages of the "Hirakud budi anchal" (submerged area of Hirakud) were evicted with use of police force. Those who had 'patta's (written ownership of land) got meager compensation. People depending upon the community resources were left with empty hands. Their number would be 40,000-50,000. Till date,

compensation could not reach 3540 families.

On 12<sup>th</sup> April 1948, late Pundit Jawaharlal Nehru, then Prime Minister of the nation laid the foundation stone of the dam for the second time and Hirakud dam was named as the "temple of the modern India" by him. A barrage in Mundali, an additional power house in Chipilima and other constructions in the delta area followed. On 13<sup>th</sup> January 1957 Hirakud dam was formally inaugurated by Pundit Jawaharlal Nehru. From 1956 the process started for irrigation and hydropower generation. In 1966 this dam attained its full potential.

**Planned role in flood control** Before the construction of the dam regular floods wrecked Orissa. It was assumed that prior to the dam land in Mahanadi River valley and in Brahmani, Baitarani and other river valleys were subjected to regular floods. Dr Khosla's report states that Hirakud dam was capable of managing 9.5 MAF (Million Acre Feet) flood water. The earlier plans contained clauses like the drained water released from the dam should never cross the 90 feet level at Naraj, closure of the flow at Banki and Mancheswar, closure of some spills in Kushabhadra, Bhargavi and Daya rivers and emptying a part of the reservoir to accommodate the run-off in the monsoon period for flood management. In this plan the delta area and the Sambalpur town were essentially given protection from floods. In the earlier plans the full reservoir capacity and the minimum reservoir capacity were estimated at 4.72 MAF and 1.88 MAF respectively. For this 64 sluices were constructed. The overall capacity of the spillway was estimated at 15 Lakh cusecs.

**Planned role in irrigation** In the proposed plan in 1947 the total irrigated land was estimated to be 350 000 Ha which included 198000 Ha for flow irrigation and 157 000 Ha for lift irrigation. Later on the revised plans estimated 235 477 Ha of irrigated land by the reservoir which included 159 109 Ha for Kharif and 79 371 Ha for Rabi cultivation. It was reported by the govt that the reservoir has the potential for irrigating 108 315 Ha of land in Rabi cultivation. In the 1953 report, due to cost effectiveness hydropower production was given priority instead of lift irrigation. Not only this, 10.76 Lakh ha of land was estimated to be irrigated by Mundali barrage to achieve irrigation potential in the delta area. This also contained renovations in many barrages across Mahanadi and Birupa rivers at Jobra and Jagatsinghpur. With these renovations 2.2 Lakh ha in Puri and Cuttack districts and an additional 1.364 Lakh ha land by renovations were planned to be irrigated. In the plans, for Kharif and Rabi cultivation, provisions were made for 100% and 40% irrigation respectively.

**Planned role in hydro-electricity production** When plans were framed for the construction of Hirakud dam, two things were given attention regarding hydro-electricity production i.e. the capacity of the reservoir in producing power and the installed capacity of the power plant. For this the Full Reservoir Capacity and Minimum Reservoir Capacity, total inflow and the evaporation rates were taken into consideration. The hydroelectricity production was the third major objective behind construction of the dam after flood control and irrigation. In the early plans provisions were made for an additional reservoir at Chiplima with a 350 MW installed capacity. In the first stage Burla Power House and in the second stage Chiplima Power House was constructed (in 1962). The installed capacity of seven generators in Burla Power House was 235.5 MW and the installed capacity of three generators in Chiplima Power House was 72.0 MW.

**Planned vis-à-vis Actual output** In his report in 1946, dam engineer MG Rangaiyya expressed that after the dam is constructed the losses will outnumber the gains from the dam. Actually, in the last fifty years Hirakud dam is flooded with many controversies. The disastrous floods in Orissa due to wrong operation of the dam, multiple movements for displacement and compensation, dispute between farmers and industries regarding distribution of Hirakud waters, rapid decrease in the reservoir capacity, decrease in the fish production due to polluted waters etc put a question mark to the usefulness of the dam. Moreover, livelihoods of thousands of people came under stake due to this shift in objectives.

**Is flood the result of the dam?** The statistics show that the dam failed in resisting moderate floods. Out of the 141 600 square kilometer catchment of Mahanadi river valley, the dam checks the runoff from 83 400 square

kilometers. According to its capacity, the dam is designed to check only 4.72 Million Acre Feet runoff. The threat increases with the growing inconsistency of the rainfall pattern in the region. A part of the reservoir is needed to be kept empty in the summer to accommodate the rain water in the monsoon period. But the demand for electricity and industrial intake in summer becomes a compulsion for not following this norm.

While analyzing the pre-dam and the post-dam period with flood pattern, it is found that the large and devastating floods have come down from 76% to 42% while the small and moderate floods increased from 24% to 58%. In the pre-dam and post-dam period, the short term floods showed a declining trend i.e. from 64.5% to 30.8%, the medium-term floods increased from 12.9% to 28.5% and the long term floods increased from 12.9% to 38.5 %. In 1982, 2001 and 2006, the dam was unable to control the flood water successfully.

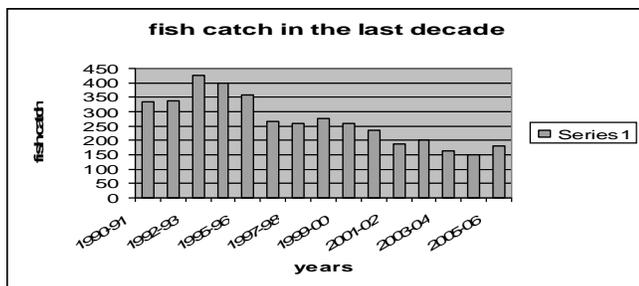
**Irrigation** Ahmedabad based "Development Support System" had analyzed the irrigation potential of various mega dam projects of the country for Central Planning Commission. The report states that In Hirakud project irrigated area, all the fields are irrigated in the upstream of canals, 35% fields are irrigated in the middle stream and in the down stream only 18% fields are irrigated. In the prior plans for the project, 159 106 ha were provided for Kharif cultivation and 108 385 ha were provided for Rabi irrigation. Now according to government sources 79371 ha are cultivated in Rabi season. In the delta area plans were made to provide irrigation to 251 000 ha in Kharif and 11 498 ha in Rabi. But now the Rabi cultivation area has decreased. In 2006, the local farmer activists argued that in the last ends of the irrigated area, 8000 ha are not getting water. The fields once irrigated by *lower Huma distributary* (of Sason canal) has already become tail area. The cause of shrinking irrigated fields lies in the reduced capacity of the reservoir due to silt deposition, reduced inflow, provision of water to the industries etc. From the 83 400 square kilometer catchment area of the dam, 75,229 lie in Chhattisgarh.

**Power Generation** The major two reasons of the cut in electricity generation in the last decade are the reduction in the capacity of the power houses and the reduction in the capacity of the reservoir. In its report of August, 2007 the technical committee predicted that by providing 0.5 MAF water to industries the power production will reduce by 46.9 Million units.

**Threat to fish production** Another objective behind construction of Hirakud dam after flood control, irrigation and hydroelectricity production was "fish production". In the last fifty years, fish production suffered a lot and the livelihoods of nearly 4000 fishermen of 250 villages as well. Not only the production in quantity suffered, but also several species are now hard to find. Among the 104 species of fish present in the river at the time of

construction of the dam only 43 species are left in these days. In the reservoir different species of fish, namely, *Rohi, Bhakur, Mirkali, Lunia, Kala bainsi, Fali, Singhar, Balia, Fufud, Kerandi, Chingudi* etc are rapidly becoming extinct. The fishermen of Mahammedpur sector complain that the waste water of different plants when released into the reservoir or feeding rivers results in a typical disease 'Kshata rog' among the fishes. This brought down the catch. The fishery department keeps the fishermen in dark as to the quantity and the types of fish seeds released into the reservoir. So they do not trust the department. There are stringent reservoir rules like using fishing net wider than two inches width, restriction on plants to release waste water into the reservoir, restriction on fishing in the breeding time etc. But they are not followed. Due to the use of *Dulungi Jaal* (close knitted net) and presence of Mafia, the fish population is over exploited. After 1968, the number of fishermen also increased. While in 1968, 164 fishermen families were dependant upon fishing as the sole means of livelihood, during 1999-2000, due to facilitation by different cooperatives, 3030 fishermen families were dependant upon fishing for earning a livelihood. The number is ever increasing even with the ever decreasing catch in the reservoir. Now the per head catch figure has come down from 347 KGs to 61 KGs. Due to deposition of Mercury, Chlorine and use of other pesticides in the fields, the catch is reducing in the reservoir.

Another threat to fishermen's livelihood is the presence of *Mafia* in the fish business. The Mafia people purchase fish at a very minimal rate and sell it to the customers at a dearer price. For this the fishermen cooperatives are suffering from loss and hence due to poor economical condition they are exempted from any loan or subsidy by the government. In many instances the societies sub-leased their sector to the Mafia not being able to meet losses. There are six sectors for fishing in the reservoir area. While five are leased to the fishermen cooperatives, the sixth one is kept by the fishery department to itself.



**Diverting water to industries** Diverting water to industries was not the objective nor was any provision of water for the industries made in the original plan of the dam. Primarily from middle 90's and afterwards in the middle of the current decade, a number of industries lined up for drawing water from the reservoir. Prior to 1997, 31912 Lakh gallons of water was diverted to

industries annually from the reservoir. It constituted 6 % of the total water provisioning to industries in the state. After the reconstruction of the water resource department in the 1997, a committee formed for water distribution. This committee permitted the industries for the drawing more water. Till 2007, water provided annually to industries from the reservoir amounted to 862 735 Lakh gallons. This was more than 27 times from the water diverted to industries in 1997.

**How much water should be provided?** The technical committee report in 2007 puts light upon the storage capacity of the reservoir. Prior to this there were multiple surveys conducted like: survey in 1957, survey in 1988 by recommendation rule curve committee, three phase survey in 1986, remote sensing survey in 1995 and report of 2000 etc. The surveys were conducted for various reasons. But the expert committee's report assessed the storage capacity of the reservoir and found out whether irrigation will be affected by diverting water to industries. This report has been severely criticized by different farmer's organizations and resource persons. The report stated that agriculture will not suffer and hydro electricity will be partly affected by providing 0.5 MAF water to industries in the monsoon and 0.334 MAF in non-monsoon period.

The storage capacity of the reservoir is imagined taking into consideration the Full Reservoir Level at 630 feet. And to fulfill demand of industries 3.91 MAF is assumed to be available in the reservoir at the FRL of 630 feet. But statistics show that the average reservoir level hovers around 627 feet. In 1966, 1974, 1979 and 2000 the Reservoir level at its peak was less than 620 feet. It is difficult to assess the storage capacity of the reservoir taking into consideration the filling of the reservoir in any one year. The waste deposition into the reservoir by different industries is rising at an alarming rate. The amount of dependable flow from the reservoir cannot be predicted. The report says that 2.71 MAF water released from the dam will irrigate 267 960 ha in the first stage and 203 622 ha in the second stage in the delta area. But in the context of increased supply to industries, it can not be guaranteed that the released water will be the same 2.71 MAF in the coming years.

Total reservoir storage capacity (1995)	4.00 MAF
Reservoir storage capacity: 2007 estimation	3.77 MAF
Loss in the storage capacity	20.12%
Estimated reservoir capacity after 25 years	3.29 MAF
Average reservoir capacity in next 25 years	3.53 MAF
Average predicted inflow in the next 25 years	1.56 MAF
Total of storage and inflow (water available)	5.09 MAF

**Impact on the environment** After the construction of the dam, in 1965 Sambalpur tasted the bitterness of famine. In the last decades in western Orissa there is increase in general evaporation rate. In the post-construction period desertification has started in the area. The reason behind this lies in the destruction of

1600 Ha reserved forest and 20400 Ha village forests for the dam. Now the industrial houses are rendering their share in destroying the remaining forest. For this reason people do not find dew drops, nor do they feel the earlier cold waves of winter in the local area. In many rain shadow areas of Bargarh there are no Mangroves or forests. The nature of climate change has put its adverse impact on the rainfall pattern of the region. In earlier times there was folklore about 8 days of heavy rain, 16 days of moderate rain, 32 days of slow rain and 64 days of drizzle (*Varsha chaturmasya*) for healthy crops. Now this has come down to 50 days in total. In the earlier plans the rainfall recorded as in the Mahanadi valley was 1381.25 mm annually. But looking at the rainfall pattern since 1958 till 2003, it can be said that the annual average rainfall has come down to 1132 mm in the region. With the fall in total rainy days and total rainfall, the irregularity of rain increased. Due to more stress on canal irrigation, the traditional harvesting structures are getting neglected. The canal is not capable of irrigating fields in the last end.

When Hirakud dam was built, its storage capacity was 5818 million cubic meters (MCM). In 1988, the capacity was estimated at 5375 MCM. Now it is around 4637 MCM. The experts say that 4637 MCM of water and 1181 MCM silt can be a factor in making the dam unsafe. Hirakud dam is situated in the earthquake zone 3. In the past, the water level of reservoir was less than the minimum level i.e. 590 feet RL on two occasions. The case of Koyna beach situated at 241 kilometers from Mumbai can be taken as an example. In 1967 and 2005 Koyna witnessed devastating earthquakes which took 200 casualties. Experts made the Koyna dam responsible for increasing the vulnerability. This can also be feared in case of Hirakud dam. If the dam breaks, then the property loss and the death toll will be beyond imagination. Urbanization flourished in the banks of the river and the nearby areas of the dam in recent times. If the dam breaks, it is predicted that Cuttack town will be flooded within 6 to 24 hours. Many habitations within Cuttack and Paradeep in the delta area will be washed away. Sambalpur, Sonepur and Banki, all situated at the banks of Mahanadi, will be subjected to massive destruction. For this there is no satisfactory provision in the disaster contingency plan of the state government.

**Government promised for land against land, house against house and ideal resettlement colonies to the people displaced. These promises were never kept. The first among the displaced, the villagers of Jamada village got only 519 rupees and 5 'anna's for 27 acres and 76 decimals.**

**At the time of construction of the dam, different traditions and cultures of the people of western Orissa were affected severely due to bitterness of displacement. The displaced people lost connections with their neighborhood and community assets. Now due to diverting water to industries, livelihoods of thousands of farmers and fishermen are at stake.**

Now mining activities are being undertaken near the reservoir area. Adding to this, many heavy metals like mercury etc are dumped into the reservoir with other wastes.

**Social dislocations and disturbances** Diversion of water to industries has been the reason of farmers' dissatisfaction over the years. In four stages *Orissa Krushak Sangathan*, a state based organization, has agitated on the issue of

water distribution and priority to industries. On many issues like illegal construction of Bhusan Industries Ltd in the reservoir area, faults in irrigation, corruption in the renovation of Sason canal and water scarcity at the outlet of Sason canal, this organization demanded place for people's voice. In the first stage, the organization mailed large number of letters by farmers to the president of India. Through this, poor farmers expressed their grievances in their own words. In the second stage, on the national highway covering 18 kilometer distance from the Jawahar Minar situated in Burla to Gandhi Minar situated at Hirakud, on 26<sup>th</sup> Oct '06, two thousand farmers formed a human chain. In this protest, farmers of the nearby districts, many voluntary organization representatives and social workers participated.

In the third stage of the protest farmers called for an open dialogue with the local political leaders. Thousands of farmers participated in this meeting and demanded the government to produce a white paper. Out of the fifteen politicians invited only one representative attended the meeting. The farmer leaders complained of non cooperation on the part of the district administration.

In the fourth stage of protest in Nov '07 farmers held non cooperation movement. This was followed by a *lathi charge* of police upon the farmers who were protesting peacefully for not diverting Hirakud waters to industries. In the *lathi charge*, many people were injured. After this incident the politicians were also forced to take up people's issues.

At the time of construction of the dam, different traditions and cultures of the people of western Orissa were affected severely due to bitterness of displacement. The displaced people lost connections with their neighborhood and community assets. Now due to diverting water to industries, livelihoods of thousands of farmers and fishermen are at stake.

**The game of compensation and resettlement** Among the people displaced those who got meager compensations were settled in 18 resettlement camps.

Those who wanted to settle outside camps and around the nearby areas were provided with homestead and farming land through *DC Patta*. The local administration had asked for 4403 ha forest land for sale to the displaced people. From this, 3153 ha were sold and 1350 ha remained as unsold as there was no irrigation facility.

In 1993 a committee is constituted to provide remaining compensation to the displaced with the following terms:

- Those who availed total compensation will not get any further compensation.
- Those who are displaced and their lands are acquired will get Rs 25000/- per ha as gratuitous compensation.

To give effect to above terms the collector estimated the compensation amount to be Rs 2.67 crores. In this the compensation for trees, other assets, wells etc were not taken into consideration.

3540 families were identified for receiving compensations. On 7<sup>th</sup> September 1993 the state government sanctioned Rs 1 crore. After identifying 977 displaced families in Sambalpur district Rs 27 lakh was allotted as compensation to them. Lastly 457 families were given Rs 26.49 lakh as compensation.

The *Jhankars* and *Chaukidaars* among the displaced people were to get 50% of the compensation money as gratuitous compensation. For this Rs 4.9 lakh was allotted but not all spent. The unspent amount was used in developing irrigation projects in resettlement camps.

Government promised for land against land, house against house and ideal resettlement colonies to the people displaced. These promises were never kept. The first among the displaced, the villagers of *Jamada* village got only 519 rupees and 5 'anna's for 27 acres and 76 decimals. From among the displaced by Hirakud, some families were displaced for the second (and third time) due to various industrial projects like Hindalco, Bhusan Ltd, Ib Thermal Power etc. From the amount estimated as compensation, more than 35% remained unspent. In 2002, government declared that all the family heads and legal heirs of displaced families are entitled to get 4 ha land each. This has not yet been implemented. In 1988,

the Chief Minister of Orissa, answering to a question in the assembly said that Rs 15.41 lakh is pending with the treasury office of Sambalpur which was meant to be paid to the private land owners because they could not come

to take compensation. A committee was formed in 1989 which could not improve the situation.

Even now the people of *Hirakud Budi Anchal* hope to get compensation. The government has enough money, but it does not have

the intent to spend. For the proper distribution of the compensation money, a separate infrastructure is needed with responsible administrative officers.

**The present situation** Like the other big dams, due to silt deposition the storage capacity of Hirakud dam is decreasing. This also enhanced the chances of massive floods. The *Rabi* cultivation is suffering. If the rainfall reduces, *Kharif* will also suffer.

Assessing the hydro power production, it can be said that in near future the power production will go down as there will be less outflow from the dam after meeting demands for industries. This will follow a heavy

reduction in the *Rabi* cultivation in delta area. To save irrigation and the dependant livelihoods, the short term relief can be sought from maintaining the canals and developing remaining irrigation infrastructures.

**What we got from Hirakud dam** The local people have

gained least from the project. The displaced have suffered the most. The government has not got enough revenue from the hydro electricity production. For the 8000 ha tail end area irrigation has been a failure. In this context, the dam which was earlier looked upon as the temple of modern India is now regarded as a cancer to the development. Fifty years have passed since the construction of the dam, but till now a post facto cost-benefit analysis has not been done for Hirakud.

Now there seems to be a shift in the objectives. Several questions too come to mind: What is the life of this dam? Till how many days the dam can serve the common people's needs? How safe is the dam? How safe is its operation? How can the dam and its operation be made more accountable to the people? Why not carry out a credible post facto evaluation of the dam? Why not assess the role of the dam in the floods in Orissa in September 2008? And many more.

BIKASH PATI, MANAS BISWAL, RCDC, Bhubaneswar

**In this context, the dam which was earlier looked upon as the temple of modern India is now regarded as a cancer to the development. Fifty years have passed since the construction of the dam, but till now a post facto cost-benefit analysis has not been done for Hirakud.**

**What is the life of this dam? Till how many days the dam can serve the common people's needs? How safe is the dam? How safe is its operation? How can the dam and its operation be made more accountable to the people? Why not carry out a credible post facto evaluation of the dam? Why not assess the role of the dam in the floods in Orissa in September 2008?**

## Why are these facts not sacred, Shekhar Gupta ji?

*This is a brief note on an article "Drought-proofing India" by Shekhar Gupta in Indian Express dated August 15, 2009, not the full response. It was kept brief with a view that Indian Express can carry it. In the interest of carrying forward a civil dialogue, this note does not use harsh language, unlike the language used by Shekhar's article. This note was sent to Shekhar Gupta's email address, to Indian Express edit page email address (for publishing as letter to editor), on the evening of August 15, 2009. There was no response from either Shekhar Gupta or Indian Express. A briefer version was submitted on line for publication on Indian Express website, since it accepts only 1000 character long response. However, the website did not carry even that response in full, see: <http://www.indianexpress.com/comments/droughtproofing-india/502292>. A translated version of the article appeared in Hindi newspaper "Bhaskar" on August 25, 2009 and a translated version of this note has been sent to Bhaskar.*

Shekhar Gupta is a big name in journalism in India. One of the basic principles of good journalism is supposed to be that facts are sacred. So one had expected that Shekhar would stick to facts even when he is arguing his case for big dams and river linking plans.

Unfortunately, his column "Drought-proofing India" (Indian Express, August 15, 2009) is a collection of misinformation and misrepresentation of facts. His article claims that good agricultural prospects of Punjab, Haryana and western UP are due to big dams. This claim is not supported by any facts or analysis. On the contrary, available evidence (see *Unraveling Bhakra* by Shripad Dharmadhikary) shows that about 45% of agricultural production of Punjab and 35% of agricultural production of Haryana is based on mined groundwater, the subject of the editorial in the *Indian Express* on the same page where Shekhar's article appeared. That analysis, in fact shows that the lands irrigated by the Bhakra system has share of 11% in Punjab's agricultural production, the figure for Haryana is 24%. If you add the fact that most of the food procurement, an additional benefit from the government at huge additional cost, happens in this region, we see what has sustained the agriculture production here. However, that agricultural prosperity is already showing serious signs of unsustainability.

Shekhar's proposition that Gujarat is agriculturally better off because of Narmada dam is on even more weak factual grounds. By the admission of Gujarat govt itself, Gujarat is able to irrigate hardly 1.5 lakh ha from the Narmada canals, out of its total cultivable area of 98 lakh ha. Even Gujarat govt does not yet claim that its agriculture prosperity is due to the Narmada irrigation! It sounds like someone trying to be more loyal than the king!!

It would be useful to note here that after spending Rs 99610 crores over major and medium irrigation projects over the last twelve years for which data was available, the area irrigated by canals from M&M projects in India has *decreased* by over 3 million ha. Details of this analysis based on official figures are available at:

[http://www.sandrp.in/irrigation/100000\\_crores\\_spent\\_no\\_irrigation\\_benefits SANDRP PR Oct2007.pdf](http://www.sandrp.in/irrigation/100000_crores_spent_no_irrigation_benefits_SANDRP_PR_Oct2007.pdf).

On his advocacy for river linking, Shekhar is on further weaker ground. In fact we do not even have a scientific basis for arriving at the conclusion, in the context of the first ILR project to be taken up, namely the Ken Betwa link proposal, that Ken is indeed a surplus river. This because the potential of local rain-water harvesting systems, watershed development, groundwater systems, tanks, ponds, lakes, wetlands etc in Ken basin has not even been assessed, as has been accepted by the officials of the National Water Development Agency of the Government of India's Ministry of Water Resources. Without assessing such a potential and then realizing the same, there can be do scientific basis for arriving at the conclusion that Ken basin indeed has surplus water. Whatever surplus water that is seen in Ken today is due to the lack of water resources in the upstream Ken basin area of Damoh and other districts. But Shekhar Gupta has little use of such facts.

Incidentally, that same edit that appeared on the page where Shekhar's article does, says, "It is estimated that as much as 70 to 80% of India's agricultural output may rely on groundwater." Even if there is some exaggeration in that estimate, there is no denying that groundwater is

India's real lifeline and is going to remain so for many years. As the latest satellite data from US shows, we are using the groundwater in most unsustainable way. Only way we can sustain the groundwater lifeline is to harvest water where it falls

**Unfortunately, this is not the first time that Shekhar has indulged in such misinformed advocacy on big dams. One expects better articles, particularly when his column is titled "National Interest" and when the column is appearing on India's Independence Day.**

through local water systems & put in place credible community led regulatory mechanism. This will be even more relevant as glaciers melt and as climate change makes monsoon even more irregular & unpredictable.

Unfortunately, this is not the first time that Shekhar has indulged in such misinformed advocacy on big dams. One expects better articles, particularly when his column is titled "National Interest" and when the column is appearing on India's Independence Day. At the moment, the article seems to be promoting some vested interests rather than the national interest.

**Himanshu Thakkar**

JUNE-AUG 2009

**Letter to TERI and Panel of Jury****NHPC does not deserve award for Environment Excellence**

*On August 17, 2009, a number of persons and organisations sent a letter to TERI and chairperson and members of jury panel that decides the award, saying that NHPC does not deserve the TERI 2009 award for environment excellence that was given to NHPC by the President of India on June 5, 2009. Two main reasons were cited in the letter: in case of URI project, where NHPC claimed to have achieved excellence in environment management, an earlier independent evaluation showed that NHPC had not even completed works as required under statutory and prudent environment requirements. Moreover, NHPC has poor track record on environment issues. Some facts were also included in the letter only by way of illustration and not as exhaustive listing. The case made out in the petition was substantiated when on August 21, 2009, the Himachal Pradesh High Court asked NHPC to stop work on the Parbati II hydropower projects for violation of environment norms. We are giving here the contents of the letter in the interest of transparency and participation by others.*

On June 5, 2009, India's President gave away the "TERI corporate award for Environment Excellence 2009" in category III (companies with annual turnover above Rs 1000 crores) to NHPC. *The Times of India* reported on June 9, 2009<sup>2</sup>, "NHPC's case study titled *Post Construction Environmental and Social Impact Assessment Study of 480 MW Uri Power Station in Jammu and Kashmir* which was undertaken to ascertain effectiveness of various environmental and social safeguards implemented at the power station was evaluated by TERI research professionals for this award."

NHPC claimed on its website<sup>3</sup>, "For the very first time in Hydro Sector, the innovative Biotechnological Approach for rejuvenation of muck dumping sites has been applied by NHPC at URI Power Station where approximately 55 lakh cubic meters of excavated material was dumped. Apart from this an improved version of the fish ladder (pool type) was also provided across the URI Barrage. Several other such measures carried out by NHPC for safeguarding the environment at the URI Power Station, effectively fulfilled various parameters as programme commitment, scientific research & technological innovation, pollution prevention, environmental leadership, environmental benefits etc., set up by TERI, in order for NHPC to be conferred with this prestigious award."

After seeing the news report about this award, one of our colleagues has procured from NHPC under the RTI Act this study titled "Post Construction Environmental & Social Impact Assessment study of Uri Power Station", mentioned in the award, done by the NHPC. The study strangely is without any date of the publication. The study was received from NHPC on August 8, 2009.

<sup>2</sup> See:

[http://www.teriin.org/index.php?option=com\\_terininews&limit=10&limitstart=20](http://www.teriin.org/index.php?option=com_terininews&limit=10&limitstart=20), accessed on August 11, 2009

<sup>3</sup> <http://www.nhpcindia.com/English/Scripts/PressRelease.aspx?VId=154>, accessed on August 11, 2009

We then looked at the case study of NHPC put up on the TERI website<sup>4</sup>. Very strangely, the TERI case study on NHPC had no dates as to when the claimed work was done. One of us also got in touch with Mr Pratik Ghosh, Associate Fellow & Area Convenor, TERI- BCSD (Business Council for Sustainable Development) India over email and then had a discussion with him over phone. One of us also discussed this issue with one of the Jury members on the panel of TERI for these awards<sup>5</sup>.

Some of us had also earlier looked at the evaluation of the performance of URI project<sup>6</sup> by Swedish International Development Cooperation Agency (SIDA), since SIDA had provided some loan for the URI project, which was followed by correspondence with SIDA and the consultants of the study.

Looking at all this, a number of questions arise, which none of the above, including our conversation with the concerned TERI person could answer satisfactorily.

**NHPC Performance in URI** The 480 MW URI hydropower project was commissioned in 1997. It is mandatory that all the environment and social management plan activities are completed *before* the project is commissioned. These include the catchment area treatment, compensatory afforestation, muck disposal, resettlement and construction of an effective fish ladder of proper design, with provision of adequate downstream flows all round the year to ensure that the fish-ladder is able to function properly. This is also what the conditions of environment clearance for such projects and also prudent environment management demands. In fact the award is given to NHPC for doing

<sup>4</sup> <http://www.teriin.org/awards/documents/casestudy/award09/env/NHPC.pdf>, accessed on August 11, 2009

<sup>5</sup> [http://www.teriin.org/awards/intro\\_panel.htm](http://www.teriin.org/awards/intro_panel.htm), accessed on August 11, 2009

<sup>6</sup> Uri Hydro-Electric Project, India, Evaluation of the Swedish Support, Draft Final Report, November 2005, done by consultants called Scott Wilson.

all this in case of URI project in an exemplary way. However, neither the NHPC case study, nor the TERI case study claims that these tasks were completed before 1997, when the project was commissioned.

If all the required environment and social activities were not completed by project commissioning date, than these would clearly be a violation of the norms. A company cannot either claim an award or can be given an award if the company has completed any of these after the commissioning date.

In fact, the SIDA evaluation for this project mentioned above, shows that a number of these, including catchment area treatment, resettlement and fish ladder with proper design and provision of adequate flow all round the year were not done before 1997 and in most cases not even till October 2005 when that review was conducted. For example, the SIDA review says the some of the compensation issues remained unresolved till Oct 2005; that shockingly, the resettlement "has led to a loss of livelihood and reduced standard of living." About the fish pass, the SIDA review says that most of the time, the conditions in the river are not conducive for fish pass to be useful, the design has not taken into account the approach factor and that adequate downstream flows have not been provided.

It is clear that most of the claimed environment tasks, based on which NHPC has been given this award, were not completed before the project commissioning and many not even till October 2005. Thus even if one were to look at NHPC's performance at URI alone, NHPC does not deserve this award.

**NHPC track record** However, there is another very important reason why NHPC does not deserve this award. NHPC is not known for excellence in environment management, with many known cases of violations, protests, litigations, official reports and so on for many projects. For example, NHPC's performance in case in implementing environment safeguards in case of Parbati II project and Chamera II project in Himachal Pradesh was so bad that the Himachal Pradesh state government wrote to the Union Ministry of Environment and Forests, saying that till NHPC improves this performance, its application for environment clearance for the Parbati III and Chamera III projects respectively should not be considered.

Regarding NHPC performance in case of the 510 MW Teesta V project in Sikkim, here are a few extracts from the 2007 affidavit filed by the Sikkim Chief Secretary before the Central Empowered Committee (in Shiba Sunwar Vs Government of Sikkim, an intervention in the Godavarman case): The preliminary submission made by Chief Secretary, Sikkim (Respondent No. 1) is as under and NHPC is the Respondent No. 3 referred to in the affidavit, while MoEF is Respondent No. 2:

*"(I) That the respondent no. 3 and their contractor companies such as J.P.I.L. and Gammon India Ltd. Etc have deliberately damaged the forest, Flora and fauna*

*causing thereby huge forest and environmental impacts by way of encroaching upon non-diverted forest land, dumping of excavated on non-diverted forest land, dumping of excavated muck on non diverted forest land, river banks, river reserve, Road Reserve etc.*

*(II) It is further to be stated that the respondent no. 3 herein and their contractor companies did not adhere/comply with the notices, warning and show-cause issued by the authority of this respondent. It is further to be submitted that despite the repeated instruction, warning and notices of the authority of this respondent, the respondent no. 3 herein and their contractor companies completely failed and deliberately neglected to adhere to the notices....."*

There are many other examples and evidences that show the poor track record of NHPC on environment, social and related issues. When TERI decided to consider an award to such an organisation, it should have carefully looked at this track record. When concerned TERI person was asked about it, he said that they did ask the company if there are outstanding litigations or conflicts. However, taking the claim of the company at face value is clearly not something that any credible organisation would consider sufficient. It is clear from the Track record of NHPC described above that going by that performance, NHPC does not deserve and award for environmental excellence. The instances given above are only for illustration, this is not an exhaustive list of such instances.

By giving an award for environmental excellence to such an organisation, TERI has provided NHPC a certificate of merit that it does not deserve and which NHPC has already liberally used in the advertisements during recent IPO that closed on August 12, 2009 and will continue to greenwash its activities in future. TERI has indirectly put on test its own reputation as also the reputations of the award, of the jury members and that of those who participated in the award function.

In view of the above, NHPC should not have been given the award for environment excellence. We would appeal you all to review the decision to give this award to NHPC and convey to all concerned accordingly.

**Response so far** Justice J S Verma, former Chief Justice of Supreme Court of India and chairperson of the Jury has written to us on August 25, 2009 that the matter is under consideration. Mr Ravi Agarwal, one of the jury members and Mr RK Narang of TERI have acknowledged receipt of the letter.

**Endorsements** The letter to TERI and the jury has been endorsed by Shri Prashant Bhushan, Senior Supreme Court Lawyer, Souparna Lahiri, National Forum of Forest People & Forest Workers, Shripad Dharmadhikary, Manthan Adhyayan Kendra, Soumitra Ghosh, NESPOL, Rahul Saxena, Himalay Niti Abhiyan, Vimal Bhai, Matu Jan Sangathan, Gopal Krishna, Waterwatch Alliance and Himanshu Thakkar, SANDRP.

**PROJECT PROMOTER'S RESIGNATION FROM MEF COMMITTEE WELCOME****REVIEW CRUCIAL DECISIONS OF ABRAHAM COMMITTEE**

The resignation of Mr. P. Abraham from the chairmanship of the MEF Expert Appraisal Committee (EAC) on River Valley and Hydropower projects which was announced in a press conference by the Union Minister of State for Environment & Forests (Independent Charge), Mr. Jairam Ramesh, on June 26, 2009 is indeed a welcome move. In a letter dated June 12, 2009 addressed to the Environment Minister a number of organisations from different parts of India had pointed out the 'conflict of interest' in Mr. Abraham chairing this crucial committee which takes decisions on dams and hydroelectric projects seeking environmental clearance. Mr. Abraham is on the board of several power companies' whose projects come before the EAC for environmental clearance. On June 22, 2009 the MoEF sought afresh the bio-datas of all chairpersons and members of the various EACs, including information on 'conflict of interest.'

To illustrate, some information on the power and dam companies on whose board Mr Abraham is, is given below.

**Abraham on Lanco Infratech Board** See: <http://markets.ft.com/ft/tearsheets/businessProfile.asp?s=5935488> P Abraham is on Board of Directors of Lanco Infratech, which is also involved in Hydro business.

On **16 Jan 2008**, the EAC recommended Environment Clearance to Phata Byung HEP by Lanco Infrastructure.

On **16-17 Oct 2008**, the EAC considered Rambara H. E. Project (76 MW) by M/s Lanco Hydro Energy Pvt. Ltd for adequacy of Terms of Reference (TOR) for the Environment Impact Assessment.

**Abraham on GVK Board** See: [http://www.gvk.com/i/Board%20of%20Directors\\_revised.pdf](http://www.gvk.com/i/Board%20of%20Directors_revised.pdf) P Abraham is on Board of Directors of GVK Industries Limited, their project Bogudiyar-Sirkari Bhyol HEP 170 MW and Mapang Bogudiyar HEP 200 MW, both in Uttarakhand, came up for clearance before the EAC on **May 14-15, 2009**.

**Abraham on JSW Energy Limited Board** See <http://www.sebi.gov.in/dp/jswdraft.pdf> He is on JSW Energy Board, as on Jan 2006 and also currently, as per <http://jswel.net/>, the website of the company.

On **20-21 Feb 2008** meeting, the EAC considered the M/s JSW Energy Ltd's Kuther HEP in Himachal Pradesh for TOR.

**Abraham on other relevant boards** He is Chairman of Maharashtra Power Generation Company. He is on board of Nagarjun Construction company, involved in dam building. A list is provided below.

Mr. P. Abraham, is also (list includes those mentioned above):

- I) Director at:
  - a) LANCO
  - b) GVK Power & Infrastructure Co. Ltd.
  - c) Maharashtra State Power Generation Co.
  - d) Futura Polyester Ltd.
  - e) PTC Ltd. (This is co promoter of the 3000 MW Demwe HEP, which came up before the EAC on

200208)

- f) Flex Industries Ltd.
- g) JSW Energy Ltd.
- h) Vijay Electricals Ltd.
- i) Nagarjuna Construction Co. Ltd.
- j) Himalayan Green Energy Pvt. Ltd.
- k) Green Infrastructure Pvt. Ltd.

- II) Member, Audit Committee
  - a) GVK Power and Infrastructure Co. Ltd.
  - b) JSW Energy Ltd.
  - c) Vijay Electricals Ltd.

- III) Chairman
  - a) Investor Grievances Committee of PTC

**Abraham on MoP committee to push Power projects** Now, on June 11, 2009, Union Power Minister set up a committee "to review slow pace of capacity addition and make recommendations to give much needed push for it" (FE 120609). The Committee Chaired by Power Minister Shinde includes P. Abraham. This we also see as clear conflict of interest with Abraham's regulatory role in EAC.

**Abraham removed following the letter** The prompt initiative of the Environment Minister in this case is appreciated. However, the crucial and inappropriate decisions taken by the Abraham committee in the past two years also need to be reviewed as suggested in our letter to Union Minister for Environment and Forests on June 12, 2009.

Not a single project was rejected by this committee on merit and all projects were either granted pre-construction or environmental clearances, in spite of serious concerns raised in many of them by civil society groups. Some examples of these questionable decisions include (illustrative, not a comprehensive list):

1. Illegal subversion of an April 2007 National Environmental Appellate Authority (NEAA) order which asks for advance cumulative impact studies of multiple dams coming up in a river basin.

Where river basin studies have been prescribed (e.g. Bichom and Lohit rivers in Arunachal Pradesh), these have been 'delinked' from the clearance of individual projects (belonging primarily to private sector

companies, including in one case where Mr. Abraham is on the board of one of the promoter companies).

2. Pre-construction clearance granted to the 520 MW Teesta IV project in Sikkim, even though this is on the last free-flowing stretch of the main Teesta River in Sikkim, as established in letters to the EAC.

3. Decision that the Damanganga Pinjal River Link proposal does not require Environment Impact Assessment (EIA) studies or environment clearance, even though it involves massive dams.

4. Environmental clearance granted to the 1500 MW Tipaimukh project, even after accepting that the EIA report was shoddy and that further studies are still required. This project requires the submergence of 26,000 hectares of forest and the felling of 83 lakh trees.

5. Decision to ask for public hearings for the Polavaram project in affected areas of Chhattisgarh and Orissa without first conducting full and proper EIA studies in these areas.

6. Refusal to prescribe detailed 'downstream impact assessment' studies in over two dozen hydel projects in the Northeast (both private and public sector), even though the issue has been repeatedly raised by groups in Arunachal Pradesh, Assam and elsewhere.

**Mr Abraham claim is not correct** On July 10, 2009, another letter was written to Minister Mr Jairam Ramesh, which showed in detail how the contention of Mr Abraham **IS NOT CORRECT** that he abstained from meetings whenever a project of the company where he is on the board comes up at the EAC. Let us illustrate why this is not correct.

**Demwe Hydropower Project** Mr Abraham is on the board of the PTC India Limited (see: <http://www.ptcindia.com/board-of-directors.html>). PTC India has subscribed to 20% equity stake in Athena Energy Ventures P Ltd (AEPL). AEPL has been allotted the 3000 MW Demwe Hydropower project in Arunachal Pradesh. In fact PTC India Ltd's presentation in May 2009 (see: [http://www.ptcindia.com/pdf/PTC\\_corporate\\_presentatio](http://www.ptcindia.com/pdf/PTC_corporate_presentatio)

**Not a single project was rejected by this committee on merit and all projects were either granted pre-construction or environmental clearances, in spite of serious concerns raised in many of them by civil society groups.**

**Refusal to prescribe detailed 'downstream impact assessment' studies in over two dozen hydel projects in the Northeast (both private and public sector), even though the issue has been repeatedly raised by groups in Arunachal Pradesh, Assam and elsewhere.**

[n.pdf](#)) states that PTC India has already invested INR Rs 300 million in AEPL and has also committed to invest INR 1500 million. Thus it is clear that Mr. Abraham should not have been sitting in the committee when the

issues related to Demwe project came up for decisions. However, Mr Abraham never abstained from these decisions, as can be seen from minutes of the EAC meetings on following dates.

**July 2007** EAC grants pre-construction clearance to the 3000 MW Demwe project and prescribes TOR for EIA. This was a wrong decision even on merit as the project was going to affect the Kamlang Wildlife Sanctuary. In such a case, at least the preconstruction clearance should not be given, as is the normal practice (e.g. in case of Ken Betwa Link proposal, since the dam was affecting the Panna Tiger Reserve, it was not given pre-construction clearance).

**Feb 21, 2008** The 1200 MW Demwe lower and the 1800 MW Demwe upper project was given approval for TOR of EIA, in place of the single 3000 MW project cleared in July 2007. The project was split into two to avoid submergence of the Kamlang wildlife sanctuary, but the projects were still in "close proximity" of the sanctuary as noted in the minutes. Even though these were two separate projects which had to be appraised afresh, the minutes are silent on the vital issue of 'pre-construction' clearance. It was decided in this meeting to conduct a full river basin level study of the Lohit river basin in light

of multiple projects coming up there. However it was decided that: "The Environmental Clearance to Demwe Upper and Lower HE Project should not be linked with the completion of basin studies." It was decided to delink the

environmental clearance of the Demwe (Upper and Lower) projects from the river basin study, even though they constitute over 40% of the hydropower capacity proposed to be installed in the river basin!

**July 16, 2008** The EAC notes that the Lohit basin study is required following the condition in the clearances to the two Demwe projects in Feb 2008. In the same meeting, the EAC mentioned the site visit by some of the members to the Lohit basin in June 2008, but there is no site visit report in the minutes. The EAC says, "The site visit report was considered by the committee and the recommendation for additional TORs, proposed in the report was accepted", but the additional TORs are not even listed in the minutes.

**January 22, 2009** The EAC considers the revised TOR for the basin studies of the Lohit basin and Bichom basin.

It was strange to note that the EAC decided that the period of the study would be 6-9 months, down from 24 months discussed on July 16, 2008 EAC meeting. Suddenly WAPCOS appears as consultant for BOTH the studies, without any tender or any other selection process. No reason is given why WAPCOS is selected, why the study period is reduced and thus study diluted.

**Feb 16, 2009** The EAC decides to approve the TOR for the Lohit basin study for Rs 1 Crore, decides to ask WAPCOS to do the study. It was strange to note that Bichom basin study budget that was mentioned as 110 lakhs in the July 16, 2008 meeting now comes down to Rs. 65 lakhs. No basis has been provided for these decisions. All this implies dilution of the study requirements. Clearly a series of inappropriate decisions have been taken.

Moreover, in spite of inputs received from civil society groups in January 2009 that it is extremely important to study the downstream impacts in these river basins in Assam (which also contain several ecologically sensitive areas such as the Dibru-Saikhowa National Park), this was completely ignored while finalising the ToR which is restricted to Arunachal Pradesh.

**June 16, 2009** The EAC decided for the Demwe Lower project in Arunachal, "As there is no change in the physical parameters due to change of FRL and enhanced capacity the Committee approved the enhanced installed capacity of 1750 MW from 1630 MW." This was a completely inappropriate decision. Firstly, as noted above, EAC had given clearance for the TOR of the Demwe lower for the capacity of 1200 MW in Feb 2008. At some stage this clearance was changed for a capacity of 1630 MW. How could the EAC now suddenly decide to approve the extent clearance from 1630 MW to 1750 MW? Please note that Mr. Abraham has chaired this discussion on the Demwe Lower project

on a day in which a story had already appeared in the media quoting him as saying: "I don't sit in the committee. I don't chair when proposals from these companies come up before the committee." (*Mail Today, July 16, 'Industry man hired as the chairman of eco appraisal body'*).

**On July 10, 2009, another letter was written to Minister Mr Jairam Ramesh, which showed in detail how the contention of Mr Abraham IS NOT CORRECT that he abstained from meetings whenever a project of the company where he is on the board comes up at the EAC.**

Abraham's role as PTC India board member and as EAC chairman.

It is clear that Mr Abraham remained present for ALL THESE MEETINGS, where decisions about the Demwe projects were taken, where PTC India has 20% stake. There is clear conflict of interest here between Mr

**Teesta III Hydropower project** This 1200 MW project is being executed in Sikkim by M/s Teesta Urja Limited. Teesta Urja is also an Athena Group company, and PTC India has 20% stake in this company too (see: [http://www.ptcindia.com/pdf/PTC corporate presentation.pdf](http://www.ptcindia.com/pdf/PTC%20corporate%20presentation.pdf)). As noted earlier, Mr Abraham is on the PTC India Board. In December 2008, the Central Electricity Authority observed that Teesta Urja had made serious

**Similarly, the EAC minutes for the April 21, 2009 meeting notes with reference to the Teesta III project (Mr Abraham is on board of a promoter of the project), "It was seen during the field visit that the excavated materials are dumped on the slope of the Teesta River without constructing the retaining wall. There was every possibility of the excavated material going down in the river with heavy rain, as the rainy season has already started." Such dumping of the excavated material is in complete violation of the Environment Protection Act and also the conditions of clearance given to the project. The EAC should have immediately recommended cancellation of the clearance of the project, stoppage of work and penalties. It did not do any of these.**

deviations from the approved DPR for the 1200 MW Teesta III project and this was brought to the notice of the EAC on January 1, 2009 by civil society groups. This issue was discussed in the April 21, 2009 EAC meeting and the minutes note, "changes adopted by Teesta Urja contravene environmental clearance accorded on 3<sup>rd</sup> August, 2006, as per the recommendations made by the EAC and the project was issued environmental clearance with a condition that:- *In case of change in the scope of the project, project would require a fresh appraisal*". From this, the obvious conclusion for the

EAC is to recommend that the environment clearance of the Teesta III project should be immediately withdrawn and the project authorities should be asked to apply for a fresh clearance, pending which, the work should be stopped. In stead of taking this legally and morally right approach, the EAC chaired by Mr Abraham takes a rather casual approach and note, "It is considered necessary to ask the developers to justify to the EAC the changes made in the various components." So firstly, Mr Abraham should not be sitting in a decision concerning

this project, going by his claim of being absent in discussions regarding projects of companies with which he has an association. More importantly, the committee takes the casual and legally wrong stand. Significantly, in the subsequent two meetings of the EAC, there is no mention of this issue at all and construction is going on full swing in the Teesta III project.

Similarly, the EAC minutes for the April 21, 2009 meeting notes with reference to the Teesta III project, "It was seen during the field visit that the excavated materials are dumped on the slope of the Teesta River without constructing the retaining wall. There was every possibility of the excavated material going down in the river with heavy rain, as the rainy season has already started." Such dumping of the excavated material is in complete violation of the Environment Protection Act and also the conditions of clearance given to the project. The EAC should have immediately recommended cancellation of the clearance of the project, stoppage of work and penalties, rather than the meek response it gave, "The committee directed the project authorities to carry out the construction of retaining walls immediately at all muck disposal sites, before the actual construction takes place." The committee has not even tried to find out if this meek direction is also actually implemented. Mr Abraham has thus clearly acted in favour of the project for which his company (PTC India, where he is on the board) is a promoter. The seriousness of the lax approach of the EAC highlighted above needs to be also seen in light of the fact that the Teesta III project has already been allowed to come up inside the Khangchendzonga Biosphere Reserve and 1 km from the National Park boundary.

**Kuther HEP of JSW Energy Ltd** Mr Abraham is on JSW Energy Board, as on Jan 2006 and also currently, as per <http://jswel.net/>, the website of the company. In the EAC meeting on May 7, 2008, the EAC decided about this project in presence of Mr Abraham, "This project was considered by the Expert Appraisal Committee at its meeting held on 20<sup>th</sup> February, 2008. The clarifications submitted by the project authority was considered by the Committee and found satisfactory. The committee approved the TOR as well as recommended clearance for the construction activity." It is clear that here again Mr Abraham participated in a decision that was clearly in conflict with his being on the board of the company that owned this project.

**Bichom river basin study proposal** According to <http://smallisbeautiful.co.in/index.swf>, Mr P Abraham is

chairman of the investment committee of the SIB Trust, which is managed by KSK Energy Ventures Limited. Thus Mr Abraham has clear conflict of interest when the EAC that he chairs discusses KSK group projects. The

Bichom river basin study is necessary since KSK group has been allotted several projects in that basin through KSK Dibbin Hydro Power Pvt. Ltd. This study was discussed and decisions about it made in the EAC meetings on July 16, 2008, January 22, 2009, February 16, 2009 and June 16, 2009 and Mr Abraham did not abstain when these decisions were taken. Further, the individual

environmental clearances of these projects in the Bichom basin (most of them KSK projects), have been delinked from the results of the full river basin study!

**Dibbin HEP** Moreover, on January 16, 2008, the EAC cleared the TOR of the EIA for the Dibbin HEP by KSK group. Mr Abraham did not abstain from this decision too.

It is clear from all these instances that *contrary to his claims, **Mr Abraham DID NOT ABSTAIN*** from many of the decisions of the EAC on projects in which there was a direct conflict of interest. All this indicates the need for review of the decisions taken by the Abraham committee.

We urge the MEF to do a comprehensive review of such decisions of the Abraham committee in a transparent manner and take appropriate actions. Such a review is necessary to restore credibility into the environmental decision-making process.

**Endorsements** The above mentioned letters to the Union Minister for Environment and Forests were endorsed by: Neeraj Vaghlikar of Kalpvriksh Environmental Action Group, Cten Lepcha of Affected Citizens of Teesta (Sikkim), Tone Mickrow of All Idu Mishmi Students Union, K K Chatradhara of Peoples Movement for Subansiri-Brahmaputra Valley, Bamang Anthony of Arunachal Citizens Rights, Ravindranath of River Basin Friends, Mite Lingi of Idu Cultural and Literary Society, Vimalbhai of Matu Jansangathan, Gopal Krishna, Waterwatch Alliance and South Asia Network on Dams, Rivers & People.

While prompt removal of Mr P Abraham from the chairmanship of the EAC on River Valley and Hydropower projects is welcome, we have not got any response from the ministry on the others issues raised above. We hope the ministry will respond on these issues too soon.

**It is clear from all these instances that *contrary to his claims, Mr Abraham DID NOT ABSTAIN* from many of the decisions of the EAC on projects in which there was a direct conflict of interest. We urge the MEF to do a comprehensive review of such decisions of the Abraham committee in a transparent manner and take appropriate actions. Such a review is necessary to restore credibility into the environmental decision-making process. The Ministry is yet to respond to the letter.**

**DAMS**

**KRS dam to get new flood gates** To mark the platinum jubilee of the Krishnaraja Sagar (KRS) reservoir near Mysore, the Karnataka government has decided to install new flood gates to the dam. It has also decided to take up modernisation work of two major canals — Visvesvaraya and Devaraj Urs. Designed by Sir M Visvesvaraya, the dam boasts of state-of-the-art design and was indigenously built using the resources and talent available during his tenure. As many as 152 flood gates had been installed to store 49 tmcft (thousand million cubic feet) of water.

**Dams under distress need urgent repair** The former Irrigation Secretary G. Aswatha Narayana has said that Krishnaraja Sagar, Hemavathi, Harangi and Kabini reservoirs require urgent major repair works to save them from serious problems such as heavy leakage and seepage owing to erosion of crest gates on account of widespread rusting and jammed gates.

Mr Aswatha Narayana said that portions of the dams, particularly in the KRS reservoir, have collapsed due to bad maintenance over the years. These mistakes, if ignored, would result in heavy damage to the reservoirs and a catastrophe to the people living in the downstream, he said. He likened the condition of these dams to a heart patient, which if not attended to immediately would lead to disastrous consequences.

Heading a team of experts for inspection of the reservoirs under the Cauvery Neeravari Nigam Limited, Mr Aswatha Narayana in his report said that cracks had developed in the Hemavathi Reservoir due to deterioration in the quality and strength of construction. The cracks, he said, had developed over the last three years. He said that the gates of the KRS Dam were rusted and that many of them were not opened for years and could not be operated. Heavy leakage had started in these crest gates which may develop into a dangerous situation and unmanageable.

The report said that it needed urgent ultrasonic pulse velocity tests to study the loss of density/ mass of the material of construction used in the dam. About the Kabini Dam, the report said that it was observed that maintenance of drainage gallery of the dam was poor and it was not done for several years. Nearly 50 per cent of the uplift pressure holes were not working due to deposits of leached materials.

Mr. Aswatha Narayana said that some problems were damaging the Harangi and Kabini reservoirs. There was an urgent need to study the health and strength of all the dams, he said. The radial gates and sluice gates in Kabini dam required to be regularly operated during each monsoon flood, which was not done.

As the Managing Director of the Karnataka Power Corp, Mr Narayana had led a team of engineers to restore the Talakalale Dam. A balancing reservoir had been leaking and it went up to an alarming level of ten cusecs

crossing the permissible danger mark of 2.28 cusecs. He said that preserving old dams was more important than constructing new ones as they [construction of new dams] had become extremely difficult owing to inter-State water disputes, their impact on environment, high costs and large scale displacement of people. (The Hindu 240807, 210808, *Dainik Bhaskar* 250509)

**WATER BUSINESS**

**Resistance to privatisation of water** *Water Profits and Democracy* Kshithij Urs, Richard Whittell, Sage Publications India New Delhi. Rs 395.

It is not fashionable for reviewers to be enthusiastic, but let me stick my neck out and say that this is one of the best books on the subject of privatisation of water that I have read in a long time. The authors distance themselves from the prevalent notion of 'reform' and put the word into quotation marks to indicate this, and want it to be resisted.

The authors examine the various arguments advanced in justification of privatisation; for example, that (i) public utilities and even 'parastatals' are inefficient; the private sector is more efficient and will provide a better service; (ii) under the present dispensation, the poor are in fact paying more for water than the rich; (iii) the poor are willing to pay for a better service; (iv) major investments are needed to upgrade, modernise and extend the services; the necessary resources are not available in the public sector; therefore private sector investments have to be brought in. All these propositions are analysed and shown to be seriously misleading.

The last section of the book gives an account of resistances to the privatisation moves. That bare-bones summary of the book (not seriously inaccurate, one hopes) does not do justice to the thoroughness, rigour and sophistication of the authors' arguments. The available space does not allow illustrative quotations. Let me merely say that the case for privatisation is comprehensively demolished, leaving not a shred standing. Let me conclude by telling the authors (quoting a remark from a very different context): "You hit the nail on the head bloody hard, bloody right, and bloody often." (RAMASWAMY R. IYER in *The Hindu* 260509, edited version)

**QUOTES**

Much of the economy of Punjab and Haryana depends on open ended purchase of grains by the Centre. The State level taxes and imposts on purchases by the Food Corporation of India are an important source of income for the state governments.

Editorial (*Mint* 180809)

What is the back up plan if the Ganga's glacier melts? No car factory will be of any use if the monsoons fail. No development will be of any use if the Ganga dries up.... Certainly, India occupies the higher moral ground but that won't make the rains fall.

Bill McKibben (*The Times of India* 240809)

**RIVERS****THE YAMUNA: DR. SREEDHARAN'S ERRORS**

Ramaswamy R. Iyer

I greatly admire Dr. Sreedharan, am very proud of the Delhi Metro. It is with deep regret and reluctance that I am putting forward some criticisms of his article on the Yamuna in *The Times of India* of 20 May 2009, which has dismayed me by its exhibition of prejudice against and impatience with points of view that it does not share, and its completely wrong approach to the river. Coming from a person of such eminence, the article cannot be ignored. It is necessary to deconstruct it.

Let me draw attention to the attitude that the article displays. Consider Dr Sreedharan's dismissive reference to "a handful of self-styled environmentalists" and again, at the end, to "a few so-called environmentalists", and the familiar plea "listen to the professionals". There are 3 implications: a downgradation of 'environmentalism', an exaltation of 'experts' over ordinary people, and a confinement of the term 'professionals' to engineers. All three are egregiously wrong.

One thought that a negative or dismissive attitude towards 'environmental' concerns was a thing of the past. It is by now abundantly clear that the world has been pursuing wrong ideas of 'development' for too long, and that radical corrections are urgently necessary. I am sure Dr. Sreedharan knows this very well. He must have read the IPCC Reports and seen Al Gore's film. Why then did he allow himself to use such deplorable language about 'environmentalists'? I can only suppose that the exasperation caused by criticisms of constructions by DMRC on the floodplains of the Yamuna has temporarily disabled his judgment, and allowed subterranean prejudices to rise to the surface.

Secondly, the Yamuna belongs to all of us, not merely to the experts. In this country water has been left to the bureaucrats and technocrats for a century with consequences that are there for all to see. In recent years even the Government has begun to talk about consulting the people and ensuring their 'participation'. 'Leave it to the experts' is therefore both a retrograde and an undemocratic slogan. Thirdly, environmentalists, ecologists and social scientists are professionals too, like the engineers. I do not need to labour that point.

So far as I know they are fighting to keep the Yamuna alive, and that is the name the movement has adopted (Yamuna Jiye Abhiyan). Their main point is that the floodplains of a river are an integral part of the river, and that there should be no construction on the floodplains. Those who are in the forefront of the popular movement may or may not be 'professionals' in Dr. Sreedharan's sense, but there are solid professionals behind them.

By now, there is much concern in the country about our dead or dying rivers, and a National River Conservation Authority has been constituted. The PMO has held meetings on the subject with special reference to the

state of the Ganga and the Yamuna. Out of that concern has emerged the Ganga Basin Authority (a somewhat flawed idea, but we need not go into that here). There have been several meetings about the saving of rivers in INTACH, and many leading professionals have been participating in them. It is a fairly widely held view - a *professional view* - that the natural floodplains of a river must be respected. Is Dr. Sreedharan familiar with the literature on the subject?

From the floodplains perspective, the location of the Akshardham temple complex was wrong; so was the location of the Metro structures. It is too late to change those locations now. Not very long ago, it was still possible to shift the Commonwealth Games to another site, but with the passage of time that too seems to have become difficult.

Dr Sreedharan does not fault them, but he faults the 'slums' for being on the floodplains. Slums consist of people; if they are in the wrong place, the reason is that they have nowhere else to go. If they are to be moved, it should be done in a humane, compassionate manner, and to reasonable habitations not too far away, with full respect for their rights. Unfortunately, the prevailing attitude is that 'development' is important, and that if people have to be pushed around for this, so be it. One wishes Dr Sreedharan had distanced himself from that kind of attitude.

'Pushing around' does not apply only to people. An American water manager is reported to have said "I love pushing rivers around". That is an unusually candid and apt declaration of an attitude, an epiphany. That attitude is - to put it mildly - not unknown in this country, but one did not expect to see it exemplified in an article by a person of such eminence.

Dr. Sreedharan's prescription for the Yamuna is to confine the river within walls and go in for 'river-front development'. This is as wrong as one can get, and it is the utter negation of the very idea of 'floodplains'. He cites the examples of European rivers. One thought that it was fairly well understood that there was a world of difference between the modest European rivers and the Himalayan Rivers in terms of size, magnitude of floods, proneness to occasional catastrophic floods, and the sediment load carried. Confining the Yamuna between walls is an invitation to disaster.

If international references were needed, the Mississippi might be a more appropriate case, though it is a much bigger river. There has been a long debate about the wisdom of confining the Mississippi within embankments (levees). I would respectfully commend to Dr Sreedharan a study of the powerful and brilliant book about the catastrophic Mississippi flood of 1927 titled *Rising Tide* by John M. Barry. (Edited from *The Hindu*)

## Worst Drought of 60 years?

Already 246 districts in 10 states (with total of 304 districts) have been declared drought affected: Assam (27), Jharkhand (24), Himachal (12), Manipur (9), Nagaland (11), UP (58), Bihar (26), Karnataka (20), Maharashtra (22), MP (37). The nationwide monsoon rainfall deficit was 26% as on August 19, 2009 (463.4 mm against normal of 627.5 mm). The Paddy cultivation was down by about 6 million ha and estimates so far show a shortfall in paddy production by about 10 million tonnes. Even if the rainfall deficit improves somewhat in the remaining six weeks of monsoon, it is unlikely to bridge the deficit substantially. Even if we have normal rainfall in the remaining six weeks, the deficit would still be around 19%, which what we had in 2002 and 1987, both worst drought of recent times. The current drought makes it worse than these earlier instances due to the severe irregularities in the rainfall pattern.

The writing of such a situation was on the walls ever since June 2009 when IMD made its forecast for the current monsoon (<http://imd.gov.in/section/nhac/dynamic/lrf.htm>) and also announced that the North West India would face 19% deficit during the monsoon. Now analysis of past monsoon shows that NW India has never faced that kind of deficit without July rainfall showing even greater deficit. Similarly there were other warnings, including from international forecasts. However they were all ignored and the Union Agriculture Ministry and IMD and they were busy giving positive spin to the situation, saying that we have enough stocks of foodgrains. They forgot that livelihoods of 60% of our population are dependent on the monsoon and having foodgrains stock is not going to help them earn livelihood. Better strategies, including taking up System of Rice Intensification across NW India would have helped.

**Mismanagement of Bhakra Dams** Here it should also be noted that during the March-June 2009 period, the huge water available in the Bhakra system reservoirs (Bhakra, Pond and Ranjit Sagar) was allowed to deplete, largely for power generation. This is because in those months, there is little agriculture activity in most of the areas served by these dams, in any case it is not an essential or prudent agriculture activity, considering the water situation. When the officials of the Bhakra Beas Management Board were questioned on this shocking depletion, they blamed IMD's normal rainfall forecast (4% deficit) in April 2009. That explanation, however, does not cut any ice. In 2008 too IMD had made normal rainfall forecast and yet during the March-June 2008 period, the water level in these reservoirs had gone up against the huge drop that happened during March June 2009. So this explanation of BBMB officials is completely wrong. The reason for the huge drop in water level in these reservoirs in March-June 2009 period is more likely to be the quest to increase power generation in

these reservoirs, first just before the election and than to bridge the huge deficit from other hydro projects.

But this wrong operation of the Bhakra dams is proving very costly for the farmers of the region during the monsoon of 2009, when the water releases from the dam has been curtailed, saying the levels are much below the previous years' level. The levels were bound to be low due to the depletion that happened during March-April 2009. The country will also pay high price for this management, with likely deficit in foodgrains deficit in a drought year. There must be an independent enquiry of this whole episode and those guilty of wrong decisions must be held accountable for the same. Unfortunately so far there is no move in that direction.

**Water surplus areas are drought hit** It is notable that among the states that have declared drought, there are states like Assam, the meteorological division they it is part of have experienced more than 1000 mm rainfall and there are regions of Haryana that has experienced just around 122 mm. The worst affected Madhya Pradesh districts include Panna and Damoh that are supposed to be part of the so called water surplus Ken basin. The drought hit states include the areas like Assam, Bihar, which are supposed to be water surplus, as per the river linking plan. In fact, a part of Bihar is experiencing floods even as drought has been declared in 26 of the 38 districts. In Maharashtra, the govt has declared scarcity like situation in 158 talukas, this is the first time the state had to declare such a situation since 2003. Jharkhand has declared drought for the first time in the middle of the Kharif season. Paddy has been shown here in just 4.62 lakh ha, out of the target of 16.92 lakh ha. In Bihar Paddy cultivation is down 5 (Indian Express 190809, 210809)

**Climate Impact?** The union environment minister was particular in pointing out that the govt is *not* saying that the monsoon failure is due to climate change. The science today is not able to help conclude if a specific impact is related to climate change. However, all the features of the current deficit monsoon are the ones indicated by the climate scientists as to how climate change would impact our monsoon. There should be no doubt that climate change has hugely contributed to this monsoon failure.

**Pond in every farm would help: Sainath** The Collector of Yavatmal district in the drought prone Vidarbha in Maharashtra says that digging a pond in every farm could help enlarge the area under rabi from around 10% to 30% of the total 9 lakh under cultivation in Kharif.

✓ **It does help in AP** In Chintpatla village of Ranga Reddy district in Andhra Pradesh, farmers are able to take up normal crops even in drought like conditions due to creation of check dams and farm ponds. (The Hindu 200809, The Financial Express 210809)

**THE NEPAL PAGE**

**West Seti HEP faces serious problems** On August 2, 2009, the Nepal's Public Accounts Committee of the parliament has directed the government to halt the new agreement of the 750 MW West Seti hydroelectric project. Earlier, Ministry of Energy had started the process for a fresh agreement. The Public Account Committee objected to one of the clauses of agreement signed with the project. The draft of the agreement has a clause which states that the law of Britain will be applicable if any dispute surfaces regarding the project. "This is an objectionable clause for any country. Moreover since the government of Nepal itself is one of the parties to the agreement, it is unacceptable. Law of the land must be applicable," Dr Prakash Chandra Lohani, a member of the committee, had told media after the meeting that decided to ask government not to renew the license until the clause is amended. There is another "unacceptable" clause in the proposed agreement. The clause says that the government of Nepal will be liable to compensate if there is disturbance, strike or any other obstructions in the project. Also, the government of Nepal will have to compensate for any loss incurred due to change in policy of the government of Nepal. The parliamentary committee has started investigation into the matter. The committee has sought clarification from the Ministry of Energy and has instructed the government not to reach any agreement on the matter until the committee comes up with a conclusion.

The PAC has also asked some questions from the government of Nepal. First, while submerging thousands of hectares of Nepalese land the water in West Seti's storage will irrigate a huge swath of Indian land downstream. What will Nepal get in return? Second, the government shall receive the agreed royalty only after the project makes profit, its loans are serviced and compensations for strikes and protests are deducted. And third, will power-starved Nepal be allowed to buy electricity from the 750 MW plant at the same price that it will be sold to India?

Earlier, the Asian Development Bank had agreed to fund the project. In that context, a question arises, why did it not see these basic problems? Why did the ADB keep on saying "the project will promote economic growth in the region and across Nepal through generating significant revenue for the govt" even when the royalty provision was so iffy?

Following the PAC decision, Water and Energy Users' Federation Nepal has filed a case at the Supreme Court seeking revision of its previous ruling. The major objections from the experts are sale of power to India when Nepal lives in dark and the possibility of water induced disaster if the reservoir storing 1600 million cubic meters gets burst.

Earlier, it was decided that the 195 m high dam will be the highest Concrete Faced Rock Filled (CFRF) dam of

the world. The project preferred this type of dam partly to keep the price tag low. The CFRF dam implies certain risks. An expert Dr AB Thapa warns of the dangers of this type of dam in quack prone area like Nepal. (Kantipur 030809, Kathmandu Post 060809, Republic daily 130809, Nepalnews.com 200809)

**Push for Pancheshwar** Prime Minister Madhav Kumar Nepal and Indian counterpart Manmohan Singh on Aug 22, 2009 directed the Joint Ministerial Commission on Water Resources and Joint Committee on Water Resources to focus on the finalisation of Terms of Reference for the 6500 MW Pancheshwar Development Authority and the Detailed Project Report, said a joint press statement issued during the official visit of Nepal PM to India. The JMCWR is authorised to make political and policy-level decisions on bilateral issues related to water resources. According to a member of the prime ministerial entourage, India has proposed to hold the fifth JCWR meeting in Sept-Oct '09. The JCWR meeting is held every six months. In a recent development, India and Nepal have agreed to set up the headquarters of the Pancheshwar Development Authority in Kathmandu.

Earlier, Unified CPN (Maoist) chairman Pushpa Kamal Dahal stressed that the issue of Pancheshwar Project should not be finalised during the Prime Minister's India visit. There are some flaws in the Mahakali Treaty (1996) section of water and electricity, he added. In the mean time, a column by Aditya Man Shrestha said, "The project was never meant to be implemented." (Republica 270709, Kantipur 180809, 230809)

**SJVN to increase Arun HEP capacity to 800 MW** Sulej Jal Vidyut Nigam Ltd is planning to almost double the generation capacity of its 402-MW Arun-III hydro electric project to 800 MW. "We are in the final stages of preparing the Detailed Project Report," said H K Sharma, chairman and managing director. The cost of setting up the project has been estimated to be over Rs 4,000 crore. This cost would go up now by 30-40 %. SJVN has worked out the generation cost from the project at Rs 3.70 per unit of power and hopes to sell it at over Rs 5 per unit. The project would generate power 2.8 billion units annually. The project was bagged by the company in March '08. According to the Memorandum of Understanding signed with the Nepal government, SJVN would provide 21.9 % free power to Nepal. The PSU would also pay 7.5 per cent of its total income from the project as royalty to the Nepal government. The project would come up on Arun river valley in Eastern Nepal. The feasibility study for the project was carried out earlier by the Nepal Electricity Authority. The project includes a 68 m high dam. Earlier, the Nepalese Supreme Court had quashed a writ petition filed by the Jindal Steel and Power Ltd against the Nepal government's decision to award the contract of Arun-III project to SJVN. In its petition filed in April '08, JSPL had questioned the bidding process. (Business Standard 210809)



**BHAGIRATHI RIVER VALLEY DEVELOPMENT AUTHORITY  
UTTARAKHAND, INDIA.**

**Letter No. 382 /195/2009-10 Dated 22 August 2009.**

**Global invitation for Expression of interest (E.O.I.): Consultancy Assignment: Preparation of Master Plan for Bhagirathi River Valley in Uttarakhand, India.**

1. Bhagirathi River Valley Development Authority is constituted as a body corporate under the 'Uttaranchal River Valley (Development and Management) Act, 2005' legislated by the Government of state of Uttarakhand, India. A Copy of the said Act, a brief history of the Bhagirathi River Valley Development Authority (BRVDA) and other information is available at the official web site <http://gov.ua.nic.in/brvda>.

2. The watershed of Bhagirathi River Valley which is under BRVDA can be seen in Google. Specific link is provided in official website.

3. The BRVDA now invites Expression of Interest (EOI) from registered legal entities, Service providers, Autonomous bodies, Institutes, etc to prepare a Master Plan as per the provision of the said Act. This Master Plan will be a legal document which will be enforced under the Act.

4. The Terms of Reference (T.O.R.) for this assignment is available for free perusal and download at the official web site of BRVDA. The TOR includes background information, Components of this assignment, area under assignment, Institutional arrangements, Implementation arrangements, the scope of services, and time schedule of reporting requirements.

5. Pre-Qualification Criteria: The main eligibility criteria for short- listing the E.O.I.s are:

i. Demonstrated capacity of Transparency and Financial Management: It is desirable that parties submit their Annual Report (Containing Balance Sheet) of past 3 years with the E.O.I.

ii. Demonstrated capacity to undertake assignment in rural mountainous area : It is desirable that parties inform us, with documents, the number of successfully completed similar consultancy assignments whose duration at time of signing the contract fall in the two categories of : (a)  $\geq 2$  years but  $< 3$  years , and (b)  $\geq 3$  years.

iii. Demonstrated capacity to manage multi- disciplinary team: It is desirable that parties inform us, with supporting documents, the number of successfully completed similar consultancy assignments in which the key staff-months of a multi- disciplinary team fall in the three categories of : (a)  $\geq 90$  man-months but  $< 135$  man-months, (b)  $\geq 135$  man-months but  $< 180$  man-months , and (c)  $\geq 180$  man-months.

iv. Demonstrated capacity to complete similar assignment: It is desirable that parties submit documents to support that they have experience of successful completion of public consultation in rural areas during process of preparation of a similar Plan/ Project.

**Instructions to Consultants:-**

6. Application Fee : Non-Refundable Application Fee of Rs.10,000/- (Rupees Ten Thousand Only) in the form of Banker's Cheque / Demand Draft issued by any Indian Nationalised Bank drawn in favor of: 'Bhagirathi River Valley Development Authority' and payable at Dehradun, Uttarakhand , India should be submitted with the EOI. Please note that the E.O.I. which does not include the Application Fee will be rejected as nonresponsive.

7. Pre-E.O.I. Conference: Clarifications will be provided to all during the Pre- E.O.I. Conference which will be held on Friday, 09 October 2009, at 11 AM in Dehradun office.

8. It is desirable that all questions are posed to us by email before this date so that we prepare well the clarifications.

9. The Request for Proposal Document will be issued only to those parties who are shortlisted after evaluation of their E.O.I. by a committee. The shortlist will normally consist of three to six parties.

10. All parties interested to undertake the assignment of preparation of Master Plan for sustainable development of Bhagirathi River Valley are invited to submit their E.O.I. in a Sealed Parcel demonstrating the factors and experience which would make the interested party suitable to undertake this assignment.

11. The last date for receipt of E.O.I. by courier / hand is: 5 PM, Wednesday, 28 October 2009.

12. Please write 'EOI for Master Plan' on top of Sealed Parcel which should reach us on time at the following address:-

**Additional Chief Executive Officer,**

**Bhagirathi River Valley Development Authority,**

**House No. 211, Himadri Avenue, Lane No. 6, Nathampur, Jogiwala. P.O. Nehrugram, Dehradun, Uttarakhand, India Pincode- 248 008.**

**Telefax (+91) 0135- 2672590**

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3. *Tragedy of Commons: The Kerala Experience in River Linking*, River Research Centre-SANDRP, '04, p 146, Rs 120
4. *THE GREATER COMMON GOOD* by Arundhati Roy, Published by India Book Distributors, 1999, pp 76, Rs 80/-
5. *Water Private Limited* Manthan Adhyayan Kendra, 2006, pp 124, Rs 50/-
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