Dams, Rivers & People

UPDATE ON RELATED ISSUES

SANDRP **ISSUE ONE** **FEBRUARY 2003**

INDEX

ABOUT DAMS, RIVERS & PEOPLE

To clearly reflect the issues we are dealing with, we have decided to change the name of our periodical to *Dams, Rivers & People*. Essentially, however we will continue to cover the issues we did in *Update*. We are numbering this issue as Issue One as we are starting with new name. We hope that *DRP* will become a medium of useful information dissemination & interaction. We would be happy to know your responses & suggestions about *DRP*.

The *DRP* will be available both in electronic (text and word versions) and printed versions. The softcopies of *DRP* are also available at www.narmada.org/sandrp and www.janmanch.org/newsletters.

The suggested minimum annual contribution for the *DRP* is Rs. 100/-, which would cover the cost of printing and mailing. Please send your DD in favour of YUVA, payable at Mumbai and send it to our Delhi address.

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HISTORY

August 1980 A National Perspective for Water Development framed by the Ministry of Water Resources

July 1982 National Water Development Agency set up to carry out detailed studies in the context of National Perspective

Sept 1999 Report of the NCIWRDP

Oct 31, 2002 Supreme Court order suggesting inter-linking of major rivers

Nov 2002 Govt announces that feasibility studies for six of the peninsular link proposals are ready.

Dec 16 2002 Govt appoints a task force under the chairmanship of Suresh Prabhu

Dec 7 2002 Justice (Retd) B N Kirpal clarifies that the Supreme Court observation on linking of rivers was only a suggestion.

The Task Force Time Table

- The task force will prepare Action Plan-I giving an outline of the time schedules for the completion of feasibility studies, detailed project reports, estimated cost, implementation schedule, concrete benefits and advantages of the projects by April 30, 2003.
- Prepare Action Plan-II giving options for funding and execution of the project as also the suggested methods for cost recovery by July 31, 2003.
- Meeting with the CMs of various States and Union Territories to deliberate over the project and to elicit their cooperation during May/June 2003.
- Completion of the feasibility studies by 31.12.2005;
- Completion of detailed project reports by 31.12.06;
- Implementation of the project by Dec 31, 2016.

SC remark on rivers linkage was only a suggestion
BANGALORE, Dec 7 (UNI): Former Chief Justice of India B N Kirpal today said that the Supreme Court observation on linking of rivers did not amount to policy intervention as it was only a "suggestion" made to the Union Government, which was free whether or not to act upon it. He was speaking at a two-day national round table on "Law, Economic Reforms and Liberalization". (SENTINEL 081202)

Readers may recall that the whole national debate and political rhetoric surrounding the issue of linking rivers started after the Supreme Court bench headed by the then Chief Justice B N Kirpal "suggested" on Oct 31, 2002 that govt may take up linking of the major rivers of India.

The proposal The National Perspective Plan for inter linking of Indian rivers has been divided in two components. (i) Peninsular Rivers Development and (ii) Himalayan Rivers Development Component.

Under the Peninsular Rivers Development Component, NWDA has completed the Water Balance Studies of 137 basins / sub-basins and 52 diversion points, 58 Reservoir Studies and 18 Toposheet Studies of link alignments.

Under the Himalayan Rivers Development Component, the Water Balance Studies at 19 diversion points, Toposheet studies of 16 Reservoirs, and Toposheet Studies of 19 link alignments have been completed.

Pre-feasibility studies of 30 link schemes have been completed. Further, the Feasibility Reports of 6 links under Peninsular Component have also been completed. Field Surveys & investigations of another 18 links are under progress. It is planned to complete Feasibility Reports of all the identified links under Peninsular Component by 2004 and Himalayan Component by 2008 as per the current mandate of NWDA. (PIB PR 051002)

Proposed Links Under Study

Peninsular Component

1. Mahanadi (Manibhadra)– Godavari (d/s)
2. Godavari (Inchampalli) – Krishna (Nagarjunsagar)
3. Godavari (Inchampalli Low Dam) – Krishna (Nagarjunsagar Tail Pond)
4. Godavari (Polavaram) – Krishna (Vijaywada)
5. Krishna (Almatti) – Pennar
6. Krishna (Srisilam) – Pennar
7. Krishna (Nagarjunsagar) – Pennar (Somasila)
8. Pennar (Somasila) – Cauvery (Grand Anicut)
9. Cauvery (Kattalai) – Vaigai – Gundar
10. Ken – Betwa
11. Parbati – Kalisindh – Chambal
12. Par – Tapi – Narmada
13. Damanganga – Pinjal
14. Bedti – Varda
15. Netravati – Hemavati
16. Pamba – Achankovil – Vaippar

Himalayan Component

1. Kosi – Mechi
2. Kosi – Ghagra
3. Gandak – Ganga
4. Ghagra – Yamuna
5. Sarda – Yamuna
6. Yamuna – Rajasthan
7. Rajasthan – Sabarmati
8. Chunar – Sone Barrage
9. Sone Dam – Southern Tributaries of Ganga
10. Brahmputra – Ganga (MSTG)
11. Brahmputra – Ganga (JTF) (ALT)
12. Farakka – Sunderbans
13. Ganga – Damodar – Subernrekha
14. Subernrekha – Mahanadi (NCIWRDP: p. 180-6)

blue ribbon

The National Commission for Integrated Water Resources Development Plan (NCIWRDP), set up by the Govt of India and which the then Union Minister claimed was a "blue ribbon commission, has been quite sceptical about the river link proposals. Shockingly, the commission was not given basic information about the Himalayan component. Let us see what the commission had to say about the various link proposals.

About the KL Rao proposal, the NCIWRDP said on p. 179 of its report dated Sept 1999, "Later, detailed examination showed that the proposal was very costly and lower cost alternatives were available."

About the garland canal of Captain Dastur, an air pilot having no experience in water resources development, the NCIWRDP said, "His scheme was *prime facie* impractical".

About the current river link proposals being perused by NWDA and the govt, the NCIWRDP says:

- "No Socio economic criteria appear to have been laid down for evaluating the proposals". (p. 181)
- **Classified data!** "Unfortunately, the Himalayan component data being classified, were not available for analysis." (p. 187) So the data was not made available even to a commission appointed by the Union govt! Can one imagine greater data paranoia of our water resources establishment? What were they afraid, except fear of exposure by some friendly scrutiny?
- "Inter basin transfer involves storage of water, construction of canals and numerous major cross drainage works which may result in water logging and other environmental impacts **more adverse than the normal water resources projects**." (Emphasis supplied.) (p. 197)
- However, looking at the available information, the NCIWRDP said (p. 187-8), "The storages and links involved are of very large sizes and lengths; and the costs of construction and environmental problems would be enormous… For Thar desert area, it would perhaps be desirable to promote and zone low density tree cover as far as possible…On the basis of published information, the Commission is of the view that the Himalayan component would require more detailed study using system analysis techniques. Actual implementation is unlikely to be undertaken in the immediate coming decades".

East flowing rivers Nine links (see the table on next page for details) are proposed for interlinking east flowing Peninsular rivers. These linkages involve construction of five dams and nine link canals. The head works will submerge 0.25 M Ha and require rehabilitation of more than 0.5 M people. The links will require concurrence between the concerned states.

- After examining the six east flowing rivers, namely Mahanadi, Krishna, Godavari, Cauvery, Vaigai and Pennar, the NCIWRDP concludes (p. 192), "**Thus, there seems to be no imperative necessity for massive water transfers.** The assessed needs of the basins could be met from full development and efficient utilisation of intra-basin resources except in the case of Cauvery and Vaigai basins." (Emphasis supplied.) Even the shortages in the Cauvery and Vaigai basins are just 5% and 8% even after increasing the present irrigated areas to 1.4 times in case of Cauvery and 1.6 times in case of Vaigai!
- About the NWDA claim that Godavari and Mahanadi being water surplus, NCIWRDP make it clear "It may be pointed out that Orissa and Andhra Pradesh have claimed that all the waters of Mahanadi and Godavari could be utilised within the basins and that there are no surpluses."

Par-Tapi-Narmada Link NCIWRDP says, "The link consists of seven reservoirs on these rivers and a 400 km long link canal connecting these reservoirs and carrying the water through Ukai reservoir and to the target command areas north of Narmada. **Taking the entire system, the cost of water delivered is high and can hardly be borne by the farmers at prevailing agricultural prices.** The irrigation rates may have to be very heavily subsidised which is not in conformity with current thinking. It is felt that these links should be deferred". (Emphasis supplied.)

Damanganga-Pinjal Link Project This water is to be supplied for domestic and industrial use for Mumbai. It involves construction of a dam across Pinjal River, a tributary of Vaitarna River. The link involves inter state issues between Gujarat and Maharashtra.

Pamba – Achankovil- Vaippar This link proposal envisages diversion of 634 Mm3 from the Pamba and Achankovil river basins in Kerala to Vaippar basin in Tamil Nadu for irrigation of 91 000 Ha in TN, generation of 500 MW through Pump Storage scheme and regulated releases of 150 Mm3. The scheme involves interstate problems. **Kerala govt, however, rejected the report of the NWDA.** Kerala Chief Minister, while replying to questions in the state assembly on 16th Feb, 1999, said the State had questioned the credibility of the NWDA study team, the report of which had been submitted for consideration to the technical advisory committee. He added that the Centre for Water Resources and Management had examined the matter and reported that Pamba and Achankovil do not have surplus water. [1]

Netravati – Hemavati This is for diversion of water from the west flowing Netravati into the East flowing Hemavati (Cauvery basin) to irrigate 33 813 Ha in Hemavati Dam canal. "The cost is rather high due to requirement of lift," says NCIWRDP.

Bedti-Varda The proposed link envisages transfer of water from the west flowing Bedti river to the Tungbhadra river, a tributary of east flowing Krishna, both within Karnataka.

Southern Tributaries of Yamuna

Ken-Betwa This proposed link envisages diversion of water from Ken Basin to Betwa basin. A 73.3 m high dam is proposed on Ken river at Daudhan with gross storage capacity of 2 775 Mm3. The total length of the link canal is 231.45 km. Two powerhouses with 60 MW and 12 MW capacities are also planned.

Kalisindh-Chambal This proposed link envisages transfer of water from Newaj river (a sub-tributary of Kalisindh river) and from Kalisindh river (a tributary of Chambal river) to Chambal river upstream of existing Gandhi Sagar/ Ranapratap Sagar reservoirs for irrigation use. This is not an inter-basin transfer.

[1] BUSINESS LINE 170299

Details of Proposed Links
For East Flowing Peninsular Rivers

SN	Name of the link	Connecting Rivers		FSL at		Length	Discharge	Annual Volume Transfer	Enroute Irrigation Vol. Mm^3	Losses
				Head	Tail					
				m	m	Km	M^3/Sec	Mm^3	Area ha.	Mm^3
1	2	3	4	5	6	7	8	9	10	11
1	Manibhadra to	Mahanadi	Godavari	74	13.81	392	687	11 176	3 854	822
	Dowlaiswaram							6 500	4 54 229	
2	Inchampalli to	Godavari	Krishna	142	182.77	299	1 219	16 426	1 850	376
	Nagarjunsagar							14 200	3 19 708	
3	Ichampalli to	Godavari	Krishna	106.68	69.68	270	263	4 371	4 221	150
	Pulichintala							-	6 94 882	
4	Polavaram to	Godavari	Krishna	40.232	27.965	174	361	4 903	1 448	150
	Viajaywada							3 305	1 48 418	
5	Almatti -	Krishna	Pennar	510	434.4	564	208.12	1 980	1 778	202
	Pennar							-	2 34 589	
6	Srisallam –	Krishna	Pennar	268.15	156.51	171.3	186	2 310	-	215
	Pennar							2 095		
7	Nagarjunsagar –	Krishna	Pennar	151.67	102.63	394	555	12 146	3 166	332
	Somasila							8 648	5 60 606	
8	Somasila –	Pennar	Cauvery	91.96	59.7	538	616.4	8 565	3 170	385
	Grand Anicut							3 855	4 91 200	
9	Kattalai Regulator -	Cauvery	Vaigai	100.75	78.865	250	174.14	2 252	2 007	136
	Vaigai-Gundar						29.88	-	3 53 337	

Note: (1) In col. 9, the upper figure indicates the gross diversion while the lower gives the quantity recharging the recipient river
The difference is accounted for the enroute irrigation and losses.
(2) In col. 10, the upper figures are volume used enroute and the lower figures are area-irrigated enroute.

Civil Society Rejects River Linking proposal

New Delhi: Majority of civil society representatives resent at "A Civil Society Dialogue on the subject of India's proposed Interlinking of Rivers" organised by the WWF Switzerland in association the Delhi-based Development Alternatives felt that the country did not need river linking, rather it needed people centered local water solutions that can solve the real needs of the people. This was the view of the participants ranging from former water secretary to the grass root organizations from diverse regions like Bihar, Andhra Pradesh, Tamil Nadu, Rajasthan, Maharashtra and Delhi.

Most of the participants rejected the setting up of the eight member Special Task Force to monitor interlinking of major rivers within 15 years for claimed benefits like mitigation of droughts, floods and disputes at an estimated cost of Rs 5,60, 000 crore under the chairman ship of Suresh Parbhu.

Contrary to what has appeared in a section of the media there was no progress made at the seminar on 8th February civil society dialogue at India International Center to set up a Peoples Commission to examine the proposed mega-initiative of the Government of India. The 100-odd participants were unanimous in their view that neither the government nor the task force has shared even the basic information like the various pre-feasibility and feasibility studies conducted by the National Water Development Agency for the last 20 years or the Report of the National Commission on Integrated Water Resources Development. In a scenario like this the proposal to set-up an independent commission to assist the government was not only deemed ridiculous but a step towards self-cooption.

When the Ganga is water deficit according to the controversial Indo-Bangladesh water treaty, how can it be shown as water surplus in the new plan, questioned Shri Ramaswamy Iyer, former water resources secretary? He said, all future studies are suspect since govt is not at all transparent about it.

South Asia Network on Dams, Rivers & People representative questioned, "without the availability of basic information, transparency and accountability of the water resources establishment, how can there be a dialogue? No area of the country needs such schemes for their water needs". Shri VB Easwaran of National Wastelands Development Board made it clear that hundreds of examples from across the country have shown that local systems and watershed development can be much better, cheaper and faster way of drought mitigation than river linking proposals. The meeting was informed that Justice B N Kripal, who had given the order on Oct 31, 2002 regarding linking of rivers across the country, has said just few days after his retirement that what was said in the Supreme Court on the subject was merely a suggestion and not an order.

Suresh Prabhu turned up to exploit the civil society space by making the right kind of noises after having decided to go ahead with project. But it emerged from the seminar that there is no real need for this project. The consensus was that there were better options to the gigantic project. Basant, a farmer from Bihar expressed horror at the attempts of the new "Bhagiraths" like Prabhu and others to ferry water across the nation.

"The political consensus on the issue of interlinking of rivers is a myth. Already states like Assam, Bihar, Kerela, Punjab, Orissa, Goa, W Bengal and Maharashtra have raised objections to it," said Dr Sudhirendra Sharma, director of The Ecological Foundation.

It was feared that this initiative of Prabhu would go the same non-serious way that the govt engaged the civil society on other development issues. The proposal of the govt to start a dialogue after taking a decision does not serve any purpose and the civil society will end up being a rubber stamp. The civil society will do well to use its resources to show that such destructive schemes are not necessary and the alternatives are sustainable and viable.

A presentation by the govt showed that it would conduct a detailed project report on river links like Par-Tapi-Narmada but it did not answer whether people living on the banks of Tapi and Narmada are willing to allow the linking of their river with the heavily mercury contaminated water of Par, a query raised by Toxics Link. In total absence of any credible Post facto assessment of any of the big water resources development projects over the past fifty years, there is no accountability for the water resources establishment in the country.

There is an inherent contradiction and confusion in the govt's stance. The fact that the Prime Minister who in the summer of 2000 talked about harvesting every drop of rain where it falls did not set up any task force on rain water harvesting, rather chose to set one up on the gigantic river linking schemes raises doubts if this govt is really interested in solving country's water problems or is it just working in the interest of contractors - engineers - consultants - bureaucrats - politicians nexus.

(Press Release on Feb 10 2003. Contact: Gopal Krishna: meetgopalkrishna@rediffmail.com)

River Link Plan is impractical: Venkaiah Naidu Rural Development Minister Venkaiah Naidu, while replying to a short debate in Rajya Sabha on drinking water crisis in the country, said that the proposal to link up the major rivers of the country is not practical looking at the geographical situation in the country. He said that without needing such schemes, govt plans to provide drinking water to all the villages by March 2004. (*RASHTRIYA SAHARA* 170502)

Trade Unions in Maharashtra to campaign Against the River Linking Proposals

Mumbai: Trade unions are better known for taking up issues of their employees' job security and related rights. But with the change in times the same trade unions are now becoming socially conscious. In an unprecedented move, the Service Sector Employees' Coordination Committee, a committee representing several trade unions and social organisations, in its Pani Parishad (Water Council) held in Mumbai on February 12, 2003 adopted a Declaration and pledged to create awareness on the issues of water scarcity and governance through its cadre in various parts of the state of Maharashtra in next couple of months.

The declaration expressed serious concern over the receding supply of water to a large number of townships and villages in the country and the escalating disputes on sharing of river waters between Karnataka and Tamil Nadu and between Punjab, Haryana and Rajasthan. Instead of coordinating village-level activities and building up an integrated plan for tackling the water problem on war footing with pragmatic considerations, supported by experience and constant innovations and activated through employment guarantee schemes, the BJP govt at the Centre has suddenly sought to revive Ganga-Cauvery link which the govt had given up 20 years ago as being absolutely unwise on techno-economic considerations, the declaration noted.

Criticising the interlinking of rivers proposal, the Pani Parishad firmly rejected the concept of treating water as an economic activity for sale in the market. Water must always be considered as national wealth entirely under the control of the whole community. Mr R G Karnik, Convener of the Coordination Committee, reiterated the need for creating a strong public opinion in favour of community-oriented comprehensive programme for enhancing the availability of water (as opposed to the centralised interlinking of rivers proposal) and its equitable distribution and generation of productive employment. Mr Karnik announced the committee's decision of holding similar meetings in Thane, Pune, Nashik, Nagpur, Kolhapur and Aurangabad in the next two months. The Pani Parishad was inaugurated by Shri R R Patil, Minister of Rural Development, Water Supply and Sanitation of the govt of Maharashtra and attended by over 200 participants representing various trade unions and employees' federations.

Dr Sudhirendar Sharma

Govt: Ganga Cauvery Link devoid of flood control benefits On Aug 9, 2000, while answering a question from MPs Shri DVC Shankar Rao and Shri Dilip Kumar Gandhi, Union Minister of state for Water Resources Smt Bijoya Chakravarty said: "However, Dr. K.L.Rao proposed Ganga Cauvery Link which was examined by the Central Water Commission and found to be grossly under estimated. Besides the proposal also required a large block of power and was devoid of my flood control benefits." If that is the case than why is the river link now being pushed?

Kerala's Experiece far from happy One of the earliest instances of inter-basin transfers in the peninsular region was from the upper reaches of the Periyar to another river basin in Tamil Nadu across the Western Ghats. This was done by constructing the Mullaperiyar dam more than a century ago. This led to the deterioration of water quality downstream of the river. Salinity intrusion and pollution dispersion problems in the lower reaches of the Periyar arose due to non-availability of sufficient quantity of water for flushing. The safety of the dam structure and inundation of the eco-forest system are also aspects discussed with concern in relation to this scheme for inter-basin transfer of water. An intra-State inter-basin transfer from the Periyar to the Muvattupuzha river for power generation in Kerala has adversely affected the downstream flow in the Periyar river. (THE HINDU 111202)

Agriculture Ministry to press for Rainwater harvesting & Riverlinking Union Agriculture Ministry will press for creation of grid system for major rivers. Union Agriculture Minister said, "Since, interlinking of rivers will need states' consent, I will raise the issue in the forthcoming meeting of National Development Council". The Union minister said that rainwater harvesting was of equal importance and "no amount of irrigation system involving canals and reservoirs can substitute rain water". (THE ECONOMIC TIMES 160902)

Punjab parties oppose National River Grid All party meeting in Punjab has opposed the proposal for the National River Waters Grid and demanded scrapping of all riparian treaties signed by Punjab. It was also decided that the International Human Right Organisation and the BKU would file jointly a petition in the SC in this context. (THE TRIBUNE 150902)

Over 500 ASF Delegates Writes to PM On the 6th Jan 2003, over 510 delegates from over 200 organisations from all over the world attending the Asia Social Forum being held at Hyderabad wrote to the Hon'ble Prime Minister requesting him to withdraw from the proposed Interlinking of Rivers Project and rather focus on more viable options of local water system. Signatories included Medha Patkar (NBA), Rajendra Singh (Rashtriya Jal Biradari), Bela Bhatia (Centre for the Study of Developing Societies), Dr. B.D.Sharma (Bharat Jana Andolan), Ashish Nandy (CSDS), Simantini Dhuru (Film maker), K.R.Datye (SOPPECOM), Smitu Kothari (Lokayan) Anastasia Laitila (Friends of Earth), Dr. Uma Shankari (Neeti Samakhya) Shripad Dharmadhikary (Manthan), Dr Letha (Chalakudy Puzha Samarakshana Samiti), SANDRP, etc. The Prime Minister's response is awaited.

NAPM opposes Riverlink proposals "The National Alliance of People's Movements will oppose the interlinking-rivers project, as we consider it as the stepping stone for the privatization of water. The project is destructive for the nation's economy and environment", said Medha Patkar in a press conference in Bhubaneshwar during the 'Desh Bachao-Desh Banao' campaign. The campaign urged the central govt not to push the project. (NAPM PR 270203)

Dambur Dam
A hot election issue

AGARTALA, Feb 13, 2003 (Inter Press Service) Northeastern Tripura's only HEP, the Dambur Dam, has become a major election issue in this insurgency-affected, CPM ruled state. The state's leading tribal party, the Indigenous Nationalist Party of Tripura, has made the scrapping of the dam its main plank and is finding support from mainstream parties like Congress and the BJP, which rules India's central govt.

"Tripura has enough natural gas reserves which can be used to generate power," argues Jahar Saha, a senior Congress leader. "So if the dam goes and the entire tribal landless population, the main recruiting base for the insurgent groups, can be gainfully resettled, it will help bring down the ethnic unrest and pave the way for stable peace in the troubled state," he says.

Surrounded on three sides by Bangladesh, this state of 10,039 s kms has a history of violent conflict between ethnic Bengali settlers and indigenous people. This has given rise to one of the many insurgencies in northeast. At present, three-quarters of the state's 3 M population are Bengali-speaking settlers whose families mostly arrived in the state after the partition of India in 1947.

In a recent statement, Indian minister for northeastern states Tapan Sikdar said: "If the Dambur dam is decommissioned, it will free up to 46.34 s kms of prime agrarian zone that has been under water for 30 years now." "The entire tribal landless population of the state can be gainfully resettled there, if the dam is decommissioned," Sikdar told IPS.

A 30 m high gravity dam with 10 MW installed capacity was constructed across the river Gumti about 3.5 km upstream of Tirthamukh in s Tripura district. The dam submerged a valley area of 46.34 s kms, which was one of the most fertile valley regions in an otherwise hilly state, where arable flatlands suitable for wet rice agriculture makes up a mere 28 % of its total land area.

Official records suggest 2 558 tribal families were ousted from the Gumti project area, but these were families who could produce land deeds and were officially owners of the land they possessed. By unofficial estimates, between 8,000 - 10,000 families or about 60,000 - 70,000 tribes people were displaced. In the tribal societies of the northeast, ownership of land is rarely personal and the system of recording land deeds against individual names is a recent phenomenon.

The outlawed National Liberation Front of Tripura and the All Tripura Tiger Force have periodically attacked Bengali settlers to evict them to restore the majority of the state's indigenous tribals, and say they want independence for tribal areas of the state, which exist in all of Tripura's four districts. Hundreds have died in the rebel attacks since the tribal insurgency first surfaced in 1992. It is estimated that half of Tripura's 200 000 tribal community support the NLFT.

The ruling Communists, though not opposing the idea directly, appear to be lukewarm about it because they possibly fear the loss of votes among the Bengali fishing community thriving around Dambur. "It's a big project. We simply cannot scrap it in one day. We will have to set up a committee to look into it," Chief Minister Manik Sarkar said recently.

The state govt says that by investing $12 M it has been able to restore the output to the dam's original installed capacity of 10 MW. Annual running cost of the project is $600 000. Experts say that the Gumti HEP is producing less than 7 MW even in the peak season when the reservoir is full during monsoon, and the "power output from this project will progressively diminish".

With huge natural gas reserves now discovered in Tripura and major gas thermal power projects in the pipeline, it is a waste of funds to invest in the Gumti HEP, says Sikdar. "If the state can produce three times more power than it now uses, there is a strong case for decommissioning the dam that will free huge fertile tracts of land for resettlement of the landless tribal peasantry of the state," says the INPT leader.

"The fertility of this land is likely to increase after so many years under water. At least 30,000 tribal families, perhaps the whole of its landless population, can be gainfully resettled in this fertile tract. Tripura's food deficit can also be solved," says Tripura's leading economist, Malabika Dasgupta.

Steady encroachments on their land by Bengali settlers was further exacerbated by the submergence of a huge swath of arable lands owned by the tribals in the Raima valley as a result of the commissioning of the Dambur project in south Tripura on Gumti River.

This project not only disturbed the fragile ecology of the Raima valley in the south district of Tripura, but also left a permanent sense of loss in the tribal psyche. All tribal groups, including the Communist-backed Gana Mukti Parishad, fiercely protested the commissioning of the Dambur HEP in 1976.

But the Congress govt, determined to augment Tripura's deficit power supply, ended up increasing the catchment area and dispossessing thousands of tribals of their land.

"Most of those ousted by the Dambur failed to get any rehabilitation grant and were forced to settle in the hills around the project, returning to slash and burn agriculture called 'jhum'. The dam destroyed the once-surplus tribal peasant economy of the state," says INPT President Bijoy Kumar Hrangkhawl, a former insurgent.

The Project

The project envisaged construction of an earthen dam 38 m high across river Khuga at Mata village of Churachandpur district in Manipur to store 90 MCM of water.

The project conceived during late '70s was approved by the Planning Commission in July 1980 at an estimated cost of Rs 150 M (irrigation component), followed by the state govt's administrative approval in Aug 1980. The cost went up to Rs 470 M (irrigation component) in Sept 1989 and further to Rs 1.53 B in 1997 (irrigation component: Rs 1.356 B, water supply Component: Rs 71.3 M; 1.5 MW component: Rs 62.4 M; 250 KW component: Rs 29.6 M). The land acquisition cost in this latest estimate was Rs 94 M.

The construction was started in 1984 with the objective of providing annual irrigation potential of 15000 Ha in two districts of Churchandpur and Bishnupur and 5 MGD drinking water supply to Churchandpur district. The irrigation component contemplated to enhance the agricultural productivity annually in the command area for a value of Rs 37.1 M. The hydro-power component added later in July 1983 and January 1993, aimed to generate 1.5 MW and 250 KW (at canal drop of right intacke) of power at an estimated costs of Rs 12.3 M and Rs 16.4 M respectively.

Comptroller and Auditors General's report for Manipur (Civil) for the year ended on March 31, 2000 criticised the tardy construction resulting in heavy shortfalls against almost all items. It observed that despite the passage of 16 years, the project, which was initially scheduled for completion by 1987-'88, was still under construction mainly because of inadequate funding by the government, poor utilisation of allotted funds, poor planning and implementation.

By March 1999 a total expenditure of Rs 1.0766 B was incurred (irrigation: Rs 892.3 M, Water Supply: 61.5 M, Power: Rs 31.8 M). There was cost overrun of Rs 886.1 M occurred under irrigation component.

The water supply component could not be commissioned because of defects in the delivery pipelines. Even after improvements and rectification costing Rs 1.737 M, the system could not be made operational and the department abandoned the defective pipes after incurring an expenditure of Rs. 11.8 M. Pump house costing Rs 1.99 M and pumpsets valued at Rs 10.3 M were submerged (in Sept and Oct 1997 when water level rose upto 821.1 m when the pump house was located at 818 m) due to incorrect flood level for its construction. The vigilance enquiry in the quality of pipe work in May 1997 revealed that there were design defects in the pipeline.

Although, five years have elapsed after the sanction, construction works on the 250 KW could not start because of non-finalisation of works by the department and non-release of funds received from the Central govt in 1994 and 1996. Turbine and generators supplied at a cost of Rs 22.4 M were lying idle in godown for want of completion of civil works.

As per the original project report 1057.05 Ha of land were to be acquired for the project; however, the department had acquired only 691 Ha by March 1999. Of the balance, 58.73 Ha was forestland.

Since 1984 the department had carried out construction works of 25.37 km of canal over an area of 40.27 Ha of forestland in the Dampi Reserve Forest without obtaining the required approval. The Forest department objected to the construction and all works had to be halted.

Corruption

- The expenditure on the project had been inflated by fictitious booking to the extent of Rs 12.4 M.
- A sum of Rs 96.2 M was awaiting recovery from five contractors on six of the closed contracts as on March 1999.
- The department had allowed an undue benefit of Rs 0.99 M to the contractors by issuing departmental excavation machinery against prohibitory orders.
- Physical existence of at least 11 construction works carried out at a cost of Rs 0.738 M appears doubtful as no two or three structures can occupy the same location.

(All figures from CAG report.)

NHPC Indicted by CAG Report of 2002 Comptroller and Auditor General of India in its report 3 of 2002 (PSUs) has said that due to the failure of the NHPC management in keeping critical spares and equipment in working condition, one of the there 180 MW units Chamera I could not produce power even though enough water was available in the river and there was demand in the grid. This happened for 27 days in April-May 1996 and for 77 days in 1999 leading to loss of 61.81 MU of power generation. Thus, the company incurred a loss of revenue amounting to Rs 145.8 MU, besides loss of incentive amounting to Rs 247.7 M.

SAGARMATHA DECLARATION AND PROGRAMME OF ACTION

The following declaration and programme of action was adopted at a very well attended International Consultation on Water Resources Development in South Asia and the World Commission on Dams in Kathmandu (Nepal) on Dec. 8-10, 2002. The Consultation, inaugurated by the Nepal Minister for Water Resources Shri Dipal Gyawali and was addressed among others by Medha Patkar, former Commissioner of the WCD, Jeremy Bird, Coordinator of the Dams & Development Project of UNEP, which has taken the responsibility for following up on the WCD report and people from across Nepal and also from India, Pakistan and Sri Lanka besides those from non south Asia countries. We think this declaration is significant event in the South Asian water resources scene and do no better than reproduce it below.

We, the participants from the countries of South Asia, namely, Nepal, India, Pakistan, Bhutan and Sri Lanka have gathered with our allies and friends, in Kathmandu, Nepal to review the situation of water resource policies and projects relating to water and hydropower, assert our inalienable rights and to ensure people centered development, justice and peace among all communities and peoples in South Asia.

We proclaim the universal truth that Water is Life and for Life, which has been affirmed by many peoples, governments, organisations and networks in various forums.

We strongly assert that the absolute and sovereign rights of peoples and communities to their lands and natural resources, such as water, rivers, wetlands, coastal and marine resources, forest and minerals must be paramount in any debate, discussion and/or negotiations concerning water resources development policies, plans or projects.

Having reviewed and discussed the situation in the South Asian countries, we recognise that many of the existing development policies in the region are undemocratic, anti-people, anti-environment and anti-life, and favour elites and corporate interests, national to global, including the imposition of privatization, de-regularisation, economic structural adjustment programmes and globalisation.

We express our deep concerns that the centralised and large river valley projects have resulted in serious conflicts between the peoples and the State, among peoples and between States.

We recognise that South Asia has the second largest number of existing and planned big dams, reservoirs and irrigation channels in the world, which have attained certain benefits whether up to the envisioned targeted levels or not; and that these have also brought untold misery to the people and extensive and irreversible environmental destruction beyond compensation.

We are also concerned that so-called development related planning and interventions, including in the water and hydropower sectors, in the entire extent of the Himalayan region are being conducted haphazardly without a clear and comprehensive regional policy that encompasses the issues of peoples, human rights, ecology, sustainability, cross-border concerns that involve countries beyond the region, such as China.

We also recognise that the lands and other natural resources of indigenous and tribal peoples, dalits, ethnic and/or national minorities are being targeted and exploited as sources with highest potential for energy generation and water supply through policies and legislations depriving them of their life and livelihood.

We re-affirm the findings, conclusions and recommendations of the World Commission on Dams. We see this as a vindication of the impacts of destructive river valley projects and big dams, and the existence of viable options. We also affirm that the WCD report should be used as a framework for reviewing present water and hydropower policies and planning any future projects in the water and hydropower sector, and also addressing the outstanding social and environmental impacts of existing dams. The report also points out the large gap between realizable and realized benefits from existing infrastructrure, which needs to be bridged.

We demand:

A legally enforceable right to information regarding planning, decision making, implementation, operation and decommissioning of all water and energy resource projects.

Clearly defined and legally binding norms of accountability about projection of costs, benefits and impacts of water and energy resource projects.

Capacity building of governments, institutions, Environment Impact Assesment (EIA) agencies and peoples, to take up credible EIAs.

That EIAs should be:

a) independent, accountable, participatory and incorporating indigenous and local knowledge; and
b) a legally binding tool in decision making

Local

Recognition and respect of the inalienable and non-negotiable rights of peoples and communities to their land, forest and water resources;

Creation of effective institutional frameworks to ensure meaningful people's participation in planning, execution and monitoring of projects;

National
Moratoria on the construction of large dams till the reparation to the affected populations and problem resolution is achieved in case of the existing dams;

Participatory and credible review of on-going projects to find sustainable and least cost options.

Comprehensive, participatory and credible post-facto evaluation of all existing large dams be mandated periodically and results there from inform future decisions.

Governments;
1. To come forward and involve the people in a democratic, transparent, accountable debate and discussion in planning and decision making of water and hydropower policies, plans and projects;
2. To protect the water resources from privatization, corporatisation and commercialisation for profit; but rather to promote community control;
3. To adopt the decision making framework proposed by the WCD for an approach to development based on the respect for rights, valuing equity and sustainability;
4. To take the path of de-centralised water management & energy planning with maximum use of renewable energy sources to meet the energy needs of peoples and communities equitably;
5. Undertake economic, social, cultural and health impact assessments in addition to EIA of dams and related projects;
6. Undertake country level review of performance of large dams on the lines of the work of the WCD.

Regional/International
Keep water and water services out of the WTO and all other trade negotiations and agreements;

Support or initiate appropriate ways to make water and water services available for all;

All regional and international financial institutions, "donors", investors and corporate bodies to adopt policies, guidelines, programmes and projects consistent with the framework proposed by the WCD;

Regional and international treaties, agreements and other constructive arrangements regarding water resources and supply to be concluded according to existing standards and the WCD framework;

Cooperate and build solidarity with international organisations and NGOs/CSOs in facilitating capacity building, conflict resolution and education;

Full participation and involvement of people of the concerned countries in general, and affected people in particular in any regional or international treaty regarding water resources;

A comprehensive regional Himalayan policy to inform all development related project planning and implementation in the region.

We are collectively determined to take up the following <u>Programme of Action:</u>
- Experience-sharing in decentralized and democratic approaches to water and energy resource development and management in the region;
- Exchange programmes for activists and the affected people for better learning, understanding and cooperation on water, dams and energy issues;
- Initiate inclusive dialogues to resolve on-going dam controversies and promote an open process and framework for future decision-making;
- Undertake impact assessment studies of the past and present controversial projects by applying the WCD criteria and guidelines and suggest alternatives for reforms or de-commissioning of dams if it is beneficial;
- Conduct joint pro-active research to assist informed debate, better decision-making and in launching sustained campaigns for people centered development;
- Organise training and workshops for the implementation of WCD Report and its recommendations as well as for understanding various national, regional and international policy guidelines and standards;
- In view of the numerous instances of adverse trans-boundary impacts of water resource projects in South Asia in general, and along the Indo-Nepal border in particular, document the problems and disseminate the same as a first step towards resolution of the problems.
- Correct the erroneous impression created by many in authority and the media that Nepal is controlling and releasing flood waters to cause floods in India.
- Use as effectively as possible the existing available domestic and international remedies for the protection of the rights and interests of victims;
- Adopt all possible measures towards conflict resolutions on water-related issues from local to national and bi-lateral to multilateral levels; and
- Establish a South Asia network and resource centre on water and energy.

Zubeida Birwani, Shirkat Gah &
Naeem Iqbal, SUNGI Development Foundation

Indus Delta- the region where the sweet water of Indus used to meet with the seawater has been richest in the natural resources of fishing and agriculture in the past. Built up by the discharge of large quantity of silt washed down by the Indus, the ecosystem has been rich in nutrients that provide a nursery and an early feeding ground for many varieties of shrimp and fish.

The River The Indus which flows for about 2 880 kms within Pakistan territory could be considered as the backbone of the country or so to say the economic lifeline of Pakistan. Arising at 5 100 m elevation in the southwest Tibet, crossing from the east to west over to Ladakh in India, it enters Pakistan at Bagh-i-Darband in northwestern Baltistan. 40% of its watershed lies outside of Pakistan.

Indus Delta The Indus delta originally occupied an area of 600 000 Ha consisting of creek, mudflats and forests. In all, there are 17 major creeks making up the 200 kms mouth of the original Delta with the sea. In fact, there are innumerable creeks of Indus in the deltaic region, Manora being the extreme right in the west and Seer creek, the extreme left in the east. Due to the reduced water-flow below Kotri, only Hajamaro and Kharak creeks now receive water from the Indus Delta and there is only one main outlet to the sea that is the Khobar creek. The active Delta is now only 10% of its original area. The creeks of India (Kori creek etc) also share the same ecosystem. The debate on trans-boundary co-operation between Pakistan and India pertaining to the coastal ecosystem management therefore has a great relevance.

The climate of Indus Delta is arid sub- tropical with an average rainfall about 2200 mm, relative humidity of 76%, a mean annual temperature of 29 C and a mean surface water temperature of 21.8 C. Strong monsoon winds blow from the south west during the summer and from the north east during the winter. During the summer, seawater inundates both the active and inactive parts of the delta leaving behind evaporated salt deposits.

Mangroves The Mangroves forest in the Indus Delta is spread over some 280 000 Ha and was once the sixth largest forest of its kind in the world. It provides fuel to approximately 120 000 people, forage to 16 000 camels and other products to 28 570 households. The forest owes its sustenance to nutrient-loaded silt in the estuaries. Mangroves also act as shield against active tidal erosion in the area. They support thousands of botanical, aquatic and wildlife species and provide nursery for most of the 44 commercial fish and shrimps species sustaining their life in the deltaic area. All these benefits are dependent on the survival of the forest, which in turn needs freshwater flow in the estuaries.

The Pallo (Clupea llisha) fish sustaining the livelihood of the fisher folk of the Indus has become extinct, the major crop of red rice in the Indus delta has became the chapter of the past while the production of fish at the Sindh coast has declined by more then 70 %.

The Mangroves in the Indus Delta are predominately Avicennia marina. Four out of the original eight recorded species remain as such although Rhizophora mucronata has been reintroduced. There has been a significant reduction in mangroves cover (from around 263 000 Ha in 1978 to around 158 500 Ha in 1990) and the distribution of mangroves is patchy, with smaller areas of mangroves around the active delta and more substantial areas in the abandoned delta to the north and the south.

According to the satellite observation made in 1998, the mangrove cover has been reduced to only 160 000 Ha, of which only 50 000 Ha are healthy, whereas another 50 000 Ha of plantation are in the process of dying.

Water Statistics Prior to 1830 AD, the flow of water in the tail end of Indus was recorded as 150 MAF. Such a quantum of water is unprecedented today in whole of the Indus River system. It is around 110 MAF in totality at present. Later on, with construction of the barrages, the water flow in Indus started subsiding by and by leaving less than 10 MAF flowing to the sea as six barrages besides a mega project of Tarbela dam were built on Indus and Mangla Dam on its tributary Jhelum.

The most significant feature about the Indus River is the great variation in its flow levels with peak annual floodwater in summer due to melting of Himalayan snows and glaciers, coupled with the annual monsoon rains, followed by great shrinkage in water flow during the almost rainless winter months. The monsoon which reaches Pakistan is relatively weak and of short duration falling largely in July and August.

And it has become the bone of contention between Sindh and Punjab during current inter- provincial water crisis. So during present water shortage of acute nature being experienced by the Indus River and the consequent endeavours of both the Punjab and Sindh to get as much irrigation supplies as possible for their agriculture or so to say the prosperity for their landlord class of people, the tail end of Indus has completely dried up. With complete stoppage of the fresh sweet water of river to the sea, the ocean has started hitting back. The oceanic encroachment on the Sindh Coast has initiated the process of desertification in the fertile Indus valley destroying the human habitat as well as the flora and fauna of the Indus delta.

Prior to the 1830 AD, the Indus used to fetch 400 MCM of silt in the deltaic region thereby enhancing its territory by 8 000 Ha per annum. The official figure of water flow downstream Kotri barrage in the year 2000 was 0.725 MAF as against of 10 MAF envisaged in the 1991 water accord while as per expert opining of the IUCN at least 27 MAF of water has to be released to the sea for preservation of the ecology of the tail end of Indus river.

Ecosystem & Wildlife Mangroves ecosystem are considered to be important for many of the commercially caught species along the Pakistan coast. The total fish production of the Sindh coast is estimated to be about 0.35 MT. Within the creeks of Indus Delta, the main catches are the small pelagics, (Sardinella spp, anchovies, thryssas and other clupeids). In 1988 the landings from the creeks was estimated to be about 96,410 T, but many other species rely upon the creeks as nursery grounds.

The Indus Delta is also an important destination for migratory birds, including waterfowl and shorebirds, pelicans and flamingos.

Threat to Indus Delta Our commercial pursuits have destroyed the very ecology of river Indus. This has resulted in an environment disaster in the Indus delta where human habitat is being destroyed. The populace is migrating and the very survival of the legendary river Indus is at stake.

Pollution Pollution is a major threat in the Karachi area, affecting mangroves in particular and the sea life in general. Very large volumes of the untreated domestic sewage and industrial effluents flow through nullahs and rivers into the sea. Of the nearly 300 MGD of freshwater consumed by Karachi, more than 70 % of domestic sewage and industrial effluents are dumped untreated into the sea. In addition, much of the solid waste of Karachi ends up in the same nullahs and rivers, which carry sewage into the sea, because of municipal failure both in collection and disposal of solid waste. The port activities at Karachi and nearby Bin Qasim further pollute the sea.

The effects of pollution extend from degradation of breeding areas to poisoned stocks of adult fish. At the extreme, natural habitats can be virtually destroyed as in the surroundings of Baba and Bhit islands. In other ways, too, fisher folk have to bear the burden of pollution – as when they have to venture further offshore to harvest fish driven away by polluted waters.

Dredging is an annual feature in both Karachi and Bin Qasim ports. The resulting turbidity devastates marine life at both dredging and dumping sites. Since dumping is in the open sea, strong wave action necessitates additional subsequent dredging operations.

Oil refineries and terminals are another source of pollution. The recent oil spills by KESC and PSO at Port Qasim have destroyed thousands of hectares of young mangroves planted by Shirkat Gah, IUCN and the Govt.

Recommendations.

- Water requirement of Indus Delta should be scientifically established and ensured on equal priority with agriculture.
- The conservation of coastal ecology should be based on base line study of coastal area.
- Rehabilitation of the fisher folk of the Indus Delta
- Replanting and rehabilitation of mangrove forest
- Mangroves of Indus delta should be declared as Ecological Sensitive Protected Zone.
- A monitory framework and institutional set up be created for mangrove forest.
- The coastal population of Indus Delta should be considered as the real affectees of all the previously completed irrigation projects including the dams and reservoirs. Special programs should be launched for the economic rehabilitation of the coastal population providing them with compensation for their economic losses along with ensuring an alternative livelihood to them.
- The federal as well as provincial government should stop draining out agricultural, industrial as well as urban effluents in the Indus Delta.
- No further cuts in the Indus water flow through mega project especially the big dams and canal systems be allowed.

CRBIP (Pakistan) Affected People complaint to ADB Inspection Panel

The Chashma Right Bank Irrigation Project have had a dreadful impact upon of communities and people in and around the project area. Lives and livelihoods have been damaged and threatened because of project failures in resettlement, compensation, and access to information and consultation. Claims of citizens acknowledged by national law have also been suppressed or ignored. Full information to project affectees and announcement of awards prior to land acquisition are legally binding under the Land Acquisition Act, 1894. These were largely ignored and violated in the implementation process. Similarly, legal and historical rights of local communities to floodwater are also adversely affected by this project. These were formally negotiated between local communities and the British Indian govt at the start of 20th century. These water rights remain part of national laws and protected through land settlements done in the project area. The Bank Inspection Committee is yet to take a final decision on this, but the ADB is already facing scathing criticism on the violation in the CRBIP. (Sungi Development Foundation, Pakistan)

Drought, State and civil society in the Deccan

Tasnim and Vikas (tasneem@sancharnet.in)

Going by meteorological definitions, it is only after an interval of fifteen years that in 2002, India faces a drought. Those figures, with the greatest possible simplification -as is, and perhaps can only be, the nature of bureaucratic understanding- say little. Drought (akal as it is called in many parts, kal being death itself) is a reality that afflicts some part or the other of the countryside -and some part of the populace in almost the whole of the countryside- every year. A homogenizing (or monolithic) stock taking, be it in terms of spatial units or in terms of society as such -or what is only a euphemism, "people"- can be deleterious.

During the last few years since 1999, a period of relatively low rainfall is widely known to have aggravated the misery of the grossly exploited rural working class, the so-called 'poor'. It has also helped highlight the dangers of over-exploitation of ground water and the limits of Major & Medium irrigation projects. The erosion of the legitimacy of these has only been as much as there has been an increase in legitimacy of minor surface irrigation projects. This phenomenon has spanned over a decade, and has concretized in the last 6-7 years. The historical foundations of the logic of minor irrigation has not just been an ally but is the very ground beneath the feet of this discourse. The dismal performance of the M&M projects only help strengthen its case. Two aspects of this development deserve focus.

Firstly, as is to be expected, the state while it has found it hard to turn a deaf year to this discourse has been none too eager to relinquish its big pets -M&M irrigation projects. In Andhra Pradesh, for instance, minor irrigation's allocation from state resources has historically been round about 'ten percent'. A flash of the continuity in proportions is to be found in the Rs 12.99 B World Bank supported irrigation component of the economic restructuring project ostensibly for rehabilitation of "major, medium and minor" irrigation projects. The latter's share is Rs 1.36 B -a nostalgic ten percent. In fact, of more than Rs 30 B that the AP govt has borrowed from international donors for water resources projects, less than Rs 2 B is meant for minor irrigation projects. The belief of the state's shift away from "the big" has therefore no more real content than a chimera. As unreal however is the mythical economic case for M&M irrigation projects- efficiency, economy of scale etc. To take the case of Andhra Pradesh itself, by the end of the eighth plan, while nine times more money had been spent on M&M irrigation schemes; the area covered by these schemes was only 2.5 times that irrigated by tanks. There could not be a greater case for shift of attention towards tanks, options held in much disdain -as the distribution of money, in its characteristic fashion, clearly reflects.

This shifts our attention to the second aspect, towards what has been the most engrossing preoccupations of the civil society in the last one decade: to advocate alternative water harvesting systems or what is taken by many for only a synonym, "traditional water harvesting systems". The 'traditional' is rubricated. The nostalgia, apparent. While its case for tanks and other smaller systems is economically and environmentally sound, its dismissal of modernity not only betrays an attempt to cover a problematic past, but the extent to which it does not take the 'real' into stock. Minor irrigation systems deserve much more than that.

That having been said, in the last decade or so, the civil society has established for itself, a presence perhaps unprecedented in the Indian context. The discourse on water is an area in which its frenetic presence can be particularly felt. The extent to which principles like the recognition of ground water as a public resource independent of land ownership (though only in words), equitable distribution of water from public resources on per capita basis as also community management of public water resources (again largely in words) have come to occupy spaces in mainstream discourses are not just glistening examples of civil society's success but are also indicators of its political potential. It has engendered changes in state's formal policies, legislations and even manifestoes and common minimum programmes of political parties -new state water policies, acts on participatory irrigation management etc.

Nowhere however is the civil society's imprint to be found more resolutely than in integrated and participatory watershed development. The state's support to the participatory watershed model is akin to an organic development from experiments like in Ralegaon Sidhi, Adgaon, tribal areas of Panchmahals, Mittemari and Jhabua.

But it is in watershed also that the state posed the civil society, its greatest challenge. An example is the Rayalseema Watershed Development Programme, where in the mid 90s, some donors got together to fund watershed development. A year later, the state too started on the same road and with the huge resources that it invested into watershed development in the following years, the former was left with little bargaining power for "advocacy". Watershed development, as is clearly evident in the myriad fly-by-night NGOs -or the mega politically connected contractor NGOs- that it has given birth to, indeed has been co-opted into the state's habitual big games. While this may be a single case, such contest of legitimacy not only determines the very essence of the civil society-state relationship but is also matter of what constitutes civil society's opportunity.

With the state following civil society initiatives, close on its heels and with the quantitative advantage that it has by its very nature, it is important that the latter counterbalance it through equally weighty qualitative differences i.e., become increasingly more radical. This is not just the progressive path that the civil society should take but is the need of its very existence -at least of an honorable existence. Needless to reiterate that this is also the only possible path towards effecting any real change -including, for drought mitigation. The following broad outline of the possible initiatives in the regions of Vidarbha, Marathwada, Telengana and Rayalseema are based on the above premises.

Vidarbha and Marathwada are well recognised as backward regions in Maharashtra. And in this backwardness, history is not a mean factor. Marathwada continues to bear the marks of the Nizam's exploitative rule -oppressive land relations and a development vacuum. A rather inhospitable nature in the forms of hard rocky terrain and low rainfall has been further encumbering. Evidently, the most open contest in this region has been the struggle of the landless/small peasantry in general and the dalits in particular to wriggle out of the oppressive production and social relations. While the state's earlier land reforms package served little purpose, local actors are in no delusion of the future possibility of state-mediated land reforms or the potential of even any such possible reforms. Instead, a bypass (or compromise) has been attempted -encroachment of common lands that have hitherto served as open access resources to the livestock of the haves. With capital investment, most of these uncultivated lands can be turned productive -an opportunity which watershed development, if implemented conscientiously, provides.

On this aspect, Marathwada bears similarity with the Rayalseema region of Andhra Pradesh, an area with similar natural conditions. The Deccan Development Society calls them Dalit watersheds -development of lands belonging to the dalits and the rest of the small and marginal peasantry. The Young India project's federated agricultural labour unions have not only been instrumental in struggles for common land and the implementation of land reform legislations but have also been actively involved in struggles for hike in agricultural labour wages. Many of its partner organisations have used watershed development projects effectively to enhance the productivity of these lands. Tank rehabilitation and innovative ways of ensuring equitable water distribution are other activities that Rayalseema NGOs have been involved in. A cross fertilisation of ideas between the two regions can only add to the fecundity of civil society initiatives.

It is but in parts of Vidarbha and Telengana regions that a glorious tank tradition has left its most significant traces. For instance, in a parched Vidarbha where the average irrigation rate is 12 %, the district of Bhandara with an irrigation rate of 54 % is virtually an oasis. Tanks make the difference. It needs no more reiteration that the tank systems need all support that the civil society can muster. This is however where there are lessons to be learnt from experiences in western Maharashtra like the pani panchayat model, the Shetmajoor Kashtakari Shetakari Sanghatana and the Ralegaon Sidhi model. As in these cases, the institutions need to be characterised by radical thought and implemented elements that act conjunctively to reinforce a progressive movement. The distribution of water, a resource hitherto either considered common or altogether excluded from arbitrations in the public sphere -such exclusion of the resource having by default served the land owners- provides a golden opportunity for interventions towards equitable resource distribution in the agricultural sector. Considering that water reservoirs are constructed from state investment, there is obviously no reason why their output should not be equitably distributed on per capita or such basis. Arrangement, like the ones that have been in force, act to subsidise the rich - in fact, in proportion to their richness, as water share is made proportional to the land holdings. However, it would be credulous to believe that the state, for all its recent "participation" rhetoric would take it in its spirit.

The AP Farmers Management of Irrigation Act of 1997 purported to be for eliciting "people's participation" in the management of irrigation is a brazen example of the hegemony of landholders over a common resource impounded at public cost. Tenants while allowed are -for want of written proof- in effect, excluded. Washer people, fishing people and a multitude of other users of water are denied any voting rights. The quota of water is of course, in proportion of the land holdings. Similarly, in Maharashtra, while the state government's draft water policy has some positive elements, harsh reality is reflected in the Adarsh Gram Rojgar Yojana -A scheme modelled on Ralegaon Sidhi and declared with much fanfare as a 'radical scheme', which would be 'kept' free of petty politicking. Within a few years, not only did the scheme assume the same beaten track but was also dried off funds, such that the patron, Anna Hazare could only lament, "the scheme has lost its soul". The state's persistent and unscrupulous pursuance of the dominant ideology is also evident in its position on the subject of tribal rights to land and forests, which counts tribal interests as essentially uncouth, exploitative and violative of property rights- as witnessed in eastern Vidarbha.

It is important that the civil society counters the state's pursuance of such retrogressive ideological ends and fiercely criticises developments that harm mass interests. Creating spaces for critical dialogues would be part of such a task.

(From a summary of the report on Drought in Maharashtra and AP, written by the authors for Oxfam)

Development, as if democracy is real

Is there any Democracy in Water Sector? Development and Management of water resources so far has had little to do with democracy. Except in the broad sense that it is supposed to be happening in democratic political set up that we are supposed to have. But then as we all know, the current form of representative democracy have miserably failed to reflect aspirations, needs or wishes of the people.

One can show much evidence to substantiate this contention.

- There is no participation of people in planning, decision-making, implementation or operation of water resources development or management projects.
- Even after the most adverse experience from large dam projects over the years, govts and businesses continue to push large dam projects.
- People (whether affected, benefited or others) have no say in what projects to take up, when to take up, how to take up and who will share the costs and benefits.
- No Just R&R even today. There is not one success story of just R&R even after building some 4000 dams in India and over 45 000 across the world.
- There is not even an attempt to achieve equitable distribution of benefits. Not even an attempt to assure that minimum water needs of the people (drinking water needs, needs for protective irrigation for all farmers) are actually satisfied before luxurious demands of rich or the unjustified demands of industries. In fact there are more drought prone areas in India today than they were say 50 years ago, more annual flood damages, more dry and polluted rivers, more no source villages. Nor is there regional equity in water resources development.
- Even as India's godowns are overflowing with 60 MT of foodgrains, people still die of starvation. There is greater subsidy for every kg of foodgrains exported then those given under PDS or food for work.
- Even as large parts of India face water scarcity and drought, farmers are impoverished as they do not have protective irrigation to save their crops, the country's sugar stocks are all time high, exports are all time high, with the help of huge subsidies and sugar production is expanding at never before rates.
- Even as India's installed power capacity has gone up 210 times up in last fifty years, over 60% of rural households do not have access to electricity for one single bulb. 50% of all power supplied is not paid for, mostly by the rich.
- No Right to Information. The Freedom of Information Act recently passed by the Indian Parliament is largely untested. But we cannot underestimate the manipulation capabilities of the system. What has happened to the mandatory norms of Public Hearing and Environment Impact Assessment of the Large Dams is a case in point.

The Bad News

- Big Dams; Big Hydro Still Ruling the policies and programmes.
- River Linking Plans: one of the most mindless schemes, will take up practically all the water sector resources if allowed to go ahead. No village, no town of this country needs inter basin transfers to satisfy either drinking water needs and most do not it even for protective irrigation.
- Privatisation, Corporatisation, Globalisation: This is all going to further take away the livelihood dependent resources, away from the state and into the private hands.
- Lack of Transparency, Accountability or Participation
- Crumbling of what-has-been-so-far-claimed to be the pillars of Democracy: The Parliament, the Executive, the Judiciary, and the Media, credible opposition that would reflect real needs of people.
- The increasing influence of business (local and global) in governance.
- WTO and global capital dictating the decisions in favour of global capital.
- The World Bank: Increasing emphasis on Big Dams and privatisation, as reflected, e.g. in WRSS.
- The ADB: Increasing emphasis on privatisation of water and power sectors.
- India's National Water Policy 2002: More Dams, More Mega Projects like the Inter Basin Transfer, License to Privatisation.

The Good News

- Power Privatisation has failed. Enron, Maheshwar: Realisation that it is not the generation, but distribution, transmission, accountability, regulation that are problematic.
- Water Privatisation is failing: Manila (Philippines), others.
- Big Dams are Bad: Increasing Evidence, including WCD.
- Pak Mun. Decommissioning beginning in Japan. Demand for decommissioning from India: Kerala, Dumbur Dam in Tripura, Loktak Project in Manipur.
- Small is Big and Possible: Examples are increasing.
- The globalisation of the movement for justice and equity. The Dam affected people of Philippines suing the Japanese Govt and agencies. The Norwegian agencies booked for corruption in Ugandan Dam. The US and European companies being booked for corruption in Lesotho Dam.
- Democratisation of Development is possible: The WCD Decision Making Framework.
- The undying spirit of the people. E.g. the people of the Narmada Valley. There shall be a fight and make no mistake, there shall be light. Sardar Sarovar Dam construction is going on haltingly, at best. Maheshwar: No work. Koel Karo: No work. Arun III scrapped.
- One big source of hope should be the report of the WCD. It became possible only because of the struggle of the people against large dams.

The WCD Salient Points:

- People's voice gets a place in global commission.
- First ever independent assessment of development effectiveness of dams.
- It vindicates the criticism against large dams.
- The report is based on values of equity, efficiency, participatory decision-making, sustainability & accountability.
- It leads to a new framework of decision-making:
  - Needs assessment
  - Prioritisation of needs
  - Options assessment and selection of options, all in an open, transparent way.
  - Norms of participation and accountability from planning, decision making, implementation, and operation.
  - Clearly defined norms for public acceptance, compliance, ascertaining the least cost options, minimum social and environmental costs.
  - Free, Prior and Informed consent of the adivasis and ethnic minorities mandated.
  - Addressing the outstanding social and environmental costs and benefit potential of existing projects.

(Points for the Presentation made at HBF organised session at ASF in January 2003)

WATER POLICY

MP water policy without public debate The Madhya Pradesh govt has formulated water policy although it has not put it before the people the way it should have been done. The govt had released the policy on internet and most of the people have no idea about the policy. The policy says that a lot of subsidy is being given to water cess supplied for irrigation. There should be considerable increase in the water cess but the interest of the small farmers should be taken care of while doing so. The main provisions of the policy include maximum utilisation of water resource by the people of the state, conservation of water should be carried out in such a way that it is effective, making the water resource development projects multipurpose. The priorities in the water policy are drinking water, water supply, and production of hydel power and industrial use. (CENTRAL CHRONICLE 120902)

NE Workshop Emphasises Rain Water Harvesting The participants of two-day workshop on Water Policy held by the Brahmaputra Board laid much stress on rainwater harvesting and capacity building of water related organisations. On the issue of Fluoride contamination of groundwater, the participants suggested rainwater harvesting in those areas and demanded that authorities shall ensure the access to safe drinking water in those areas. The participants also observed that the NE states do not have their water resources department to effectively deal with all water related issues. Participants raised the issue of non-availability of drinking water during the dry season and clean drinking water in the plains in the flood season. This in a so-called water surplus basin! (ASSAM TRIBUNE 040902)

DAMS

Opposition to Bhavani Diversion Project The people of Attappady Valley (Kerala) including tribals, women, children and local people are in a critical situation with the govt of Kerala continuing with the construction of the Bhavani Diversion Project inspite of the MoEF's direction since 290103 to keep the construction of canal through the forest land for the Bhavani River weir at Mukkali 'in abeyance' by describing that it is an example of misuse of Forest Conservation Act 1980. The people are in agitation since the last one month against the Bhavani Diversion Project, which will cut off their only source of perennial water once the river is diverted to Bharatha Puzha basin. The govt continued with the construction after arresting the protesting people. Even though the MoEF has kept the project in abeyance and the Cauvery River Authority has asked the govt of Kerala to stop the work upto the next meeting (6 March, 2003), the govt is going ahead with the canal construction in private land. All the persons who were leading the struggle have been charged on false grounds by the police and they have been forced to go in hiding. Chalakudy Puzha Samarakshan Samity has demanded the dismissal of the project for protecting the right to water, the right to livelihood and right to resources of the tribals and the local population in the Attappady valley. (CPSS 250203)

Pong dam oustees yet to get land The process of rehabilitation of over 16 000 families displaced due to the Pong dam in the Kangra district four decades ago, is yet far from complete and has now been accelerated by the HP govt, claimed the state Revenue Minister. 1212 families had been allotted land in the Rajasthan canal project areas of Sriganganagar, Bikaner and Jaisalmer during the past two years. 150 more families are yet to get land. (THE TRIBUNE 240902)

Rajasthan to construct dam for blocked rivers' water Rajasthan govt has blocked the water of some rivers, which are flowing towards neighbouring states. Especially the hilly rivers of the southern areas in the state are being blocked by the state. The state irrigation minister has inaugurated Sabarmati and Jogiwad irrigation projects in Udaipur district. The works on various projects for blocking the rivers are going on. The local tribals are raising concern about compensation for their lands, which are going to submerge. The govt has divided the whole Chambal project in two divisions. The minister said that the state govt has identified 171 projects, of which 90 are going to be completed. Apart from them 10 medium, 10 lift irrigation and 246 small irrigation projects would be implemented. The minister said that water would be blocked after construction of Sabarmati dam at the joint of Mansi and Vacal rivers and another dam on Pamri river. (DAINIK BHASKAR 220902)

Ranjit Sagar dam capacity untapped The completion of the Sahpur Kandi dam project, which is essential for the operation of Ranjit Sagar Dam to full capacity, continues to be uncertain. Rs 900 M has been spent on the project till now and property worth more than Rs 2 B in terms of machinery and housing and official accommodation rendered idle after the completion of the dam has been transferred to the Sahpur Kandi dam project. The Punjab govt even now is looking for an option of handing over the project to a private construction company. A joint action committee of the 21 employee unions of Ranjit Sagar Dam has threatened stir in case the project was handed over to a private company. The dam authorities have transferred staff of 1000 to the Sahpur Kandi project. They are without work and a charge on the project to the extent of Rs 120 M a year. The project authorities have sought over Rs 1 B for the current year to start work on the project and are hoping to complete it in four years. The govt has sanctioned Rs 600 M. The central govt so far has released Rs 75 M but the Punjab govt has failed to contribute its matching share.

- The workers' unions and the Ranjit Sagar Dam authorities are at loggerheads on account of the handing over of the construction of the Shahpurkandi extension project to a private company. The project site is 11 km downstream from the RSD and 8 km upstream of the Madhopur headworks.
- It is estimated that if the RSD were to operate at full capacity to generate 600 MW, that would mean release of 24000 cusecs of water. However, since the water channels required to carry water from downstream of the RSD are inadequate, some of this water would have to be released into Ravi river, going to Pakistan. If the Shahpur Kandi dam is completed water channels in Punjab will need to be restructured to accommodate extra water. Moreover a water channel from Ravi to Jammu Tawi carrying 10000 cusecs to irrigate lands in J&K is part of the project. (THE TRIBUNE 180902, 081002)

Kol dam oustees warn govt The Kol Dam joint "Oustees Welfare Federation" has warned both Himachal Pradesh and Kol Dam Management of the NTPC to desist from taking possession of their land and houses and from demolishing them before first rehabilitating them. Acquisition officer had issued them notices to vacate their houses or these would be demolished though they had not yet been allotted any alternative plots. (THE TRIBUNE 021002, 051002)

Rehabilitation of Bagalkot The Karnataka govt has decided on a Rs 6.38 B special package for the rehabilitation of the people displaced from the district headquarters of Bagalkot and nearby villages due to the Upper Krishna Project. The govt will spend Rs 4 B on acquisition of property in the town. Besides committing itself to acquiring all structures up to 525 m the Govt will move to acquire all structures up to 523 m of elevation and ensure that the actual backwater line is at least 100 m away from the nearest building. Bagalkot got partially submerged this year after surplus water was released from the Almatti reservoir, when its storage level reached its maximum height of 519.60 m. Thousands of people had to be evacuated due to the inundation. This package is based on the comprehensive report submitted by a 7-member ministerial team that visited Bagalkot in Oct and sought the views of elected representatives and various organisations. Another Rs 1 B will be spent on improving the basic infrastructure of the town, including civic amenities that were battered by the flooding waters. (THE HINDU, THE TIMES OF INDIA & Rediff News 221002)

NEWS FROM THE NARMADA VALLEY

Filmmaker Mansoor takes up Narmada cause The noted filmmaker of Bollywood Mansoor Khan expressed his anguish for villagers whose houses have been submerged in the Narmada Valley. After visiting the Narmada Valley, he said that he "principally disagreed with the notion of development" as symbolised by the construction of large dams. He said that the large dams were not the solution to the water crisis in the country. "India is the largest builder of big dams, after the US and China. But we are not the third richest country in the world." If dams were so effective, India would not have any water shortage. (THE TIMES OF INDIA 070902)

Gujarat may have to pay Rs 600 M The funds-starved Gujarat state exchequer may have to fork out an extra Rs 600 M for Maharashtra as the cost of taking the Narmada dam from 95 m to 100 m. A final figure of the amount that Gujarat may have to pay is yet to be arrived at. But state officials say Maharashtra is seeking Rs 250 M as "immediate assistance" from Gujarat as the cost of rehabilitating 1,000 project-affected families of Maharashtra. During official-level talks, Maharashtra officials said that the amount would be required urgently to buy 1 600 to 2 000 Ha of land needed to resettle the PAFs whose land has either gone into submergence or will be submerged once the dam height reaches 100 m and beyond. (THE TIMES OF INDIA 040902)

Preliminary Estimate of the submergence by the SSP in Sept 2002

Village	Families Affected	Submerging				
		Land (Ha)			Houses	Trees
		Total	Titled	W/o Title		
Domkhedi	55	131.20	60.20	71	14	378
Surung	15	58.20	54.20	4	--	60
Sikka	71	144	82.20	61.20	12	177
Bharad	59	202	69	133	4	475
Thuvani	8	18	7.20	10.20	1	20
Keli	7	16.20	8	8.20	8	3
Atthi	14	41	28	12.20	--	4
Danel	8	23.20	5	18.20	8	25
Paula	8	32.20	25	7.20	1	7
Pipalchop	35	121.20	76.20	45	11	61
Mukhadi	9	23.20	22	1.20	--	35

(Based on surveys conducted by NBA. Many more villages are not included. 100902)

Satyagrahis in neck deep Narmada waters The waters have risen to an all time high of 107 m at the SSP dam site and have entered several tribal fields and homes in Maharshtra and MP. Dadla Karbari, Khatri Kaki, Kamla Yadav, Juggi, Hulya Patil,Dedlibai, Medha Patkar, Sitaram Kaka , Khiyali are among a hundred others now standing in tribal houses in Domkhedi, Mah. with the invading waters upto their neck. Kailash, Luharia, Bawa, Pervi, Janki,and others at Jalsindhi , in M.P.are also facing the waters. The water level at dam site on 3rd September was 103.436 m. Hundreds of farms and over 50 houses have been washed out in the swirling Narmada waters, in the Akkalkua and Akrani tehsils (Dist. Nandurbar), in Maharashtra. Almost all the houses in Domkhedi (including the centers of Satyagraha and NBA office) have been submerged.

Moreover there were large-scale destruction in Sikka, Bharad, Pipalchop, Pavla, Mukhdi, Sindhuri, Dhankhedi and Chimalkhedi villages. In one Chimalkhedi village 10 houses, a hundred goats and equal number of bullocks and cows were washed away. In Jalsindhi, Luhariyabhai's house went under water, together with the Satyagraha house. However, the people faced the submergence waters with fortitude and resolve. Medha Patkar and Kamla Yadav have been in the neck-deep submergence water for hours. (NBA PR 030902 & 050902)

Debate on SSP Height "After 110 m, the main need of the dam would be power," said a senior bureaucrat explaining why Gujarat was readily agreeing to pay up huge sums of money to the two other states for rehabilitation. It is estimated that Gujarat could end up paying around Rs 5 B for rehabilitation of oustees in the other two states when the dam height reaches 110 m. Up to 1 450 MW of hydel power can be available only when water falls from the full dam height of 138 m. The Narmada Tribunal award gives 57 % of power to MP, 27 % to Maharashtra and 16 % to Gujarat. "After that there will be no reason for Gujarat to be so pro-active," the official said. But technical experts involved in dam construction strongly contest this thinking. "It is wrong to say that there would be enough water once the dam height reaches 110 m. It is not just flawed thinking but dangerous too," said a senior dam engineer of SSP. "At the current dam height of 95 m, the 1.781 MAF storage is available, barely sufficient to last a few days in case we operate both the IBPTs at full capacity." At 110 m dam height, the storage would be 2.898 MAF. "The post-monsoon inflow of 30 000 cusecs into the reservoir would progressively go down to just 3 000 cusecs by May-end. The two IBPTs at full capacity would just empty out the dam within a mere 50 days! Any deviation from taking the dam height to 138 m and have 7.7 MAF storage, is therefore just uncalled for." In fact, the Narmada tribunal award calls 110 m as the bare minimum water storage level. Beyond that the reservoir's live storage starts. "The award does not permit us to use water below 110 m," said an expert. "The IBPTs, useable at a low dam level, can be used only under emergency situations. They are not provided with in the award. The canal should normally draw water straight from the reservoir, without the two IBPTs." (THE TIMES OF INDIA 070902)

Supreme Court on NBA petition A three-judge bench comprising Chief Justice B N Kirpal, Justice K G Balakrishnan and Justice Arijit Pasayat of the Supreme Court on 9th of Sep disposed off NBA's petition seeking to point out that the Narmada dam height was raised to 95 m without proper rehabilitation of the dam-affected in MP and Maharashtra. Appearing for the petitioner, advocate Prashant Bhushan contended that the GRA had not visited the affected villages and gave the consent for raising the height of the dam from 90 m to 95 m without finding out whether the Affected Families have been properly rehabilitated. (Rediff News 100902)

Adivasis in Narmada valley assert rights over land Thousands of tribals from the villages on the banks of Narmada (Manibeli Bhadal stretch), affected by SSP and also from villages outside the submergence zone, in Toranmal and Dhadgaon blocks participated in a padyatra held on 13 - 17 Sep against the recent decision of the state and central govts to remove all 'encroachers' from forest areas all over the country. People's organizations and adivasi rights groups across the country have opposed this move by citing another order passed by the court in 1985, making it imperative on the part of the states of Maharashtra and MP to appoint district level committees to look into the cases of old encroachments (prior to 1978) and take steps to regularize them. (NBA PR 240902)

Rs 14 B loan for Omkareshwar The MP govt will receive a loan of Rs 14 B for the Omkareshwar project jointly from a Japanese Bank and govt of India. The Union govt has decided to release its share of fund under Accelerated Irrigation Benefit Programme. The guarantee for the Japanese bank loan has been taken by the Union govt. The govt has also released Rs 200 M for the canals of Bansagar project. (CENTRAL CHRONICAL 210902)

NSP to construct Guide ring dam wall for Harsud The 1000 MW Indira Sagar Project by the NHDC is scheduled to submerge the entire Harsud town. The authorities claimed that the town can be saved from the dam and its backwaters by a Guide ring dam. NHDC is yet to get the design of the guide dam approved by CWC. NHDC claimed that the power generation from the project will start with the dam height at 238 m, and right now the dam has reached the 215 m. So far only 3100 of the 15 000 project affected families have been rehabilitated. According to the NHDC, the MP govt had approved raising of the dam's height up to 225 m. The state govt had directed to concerned authorities to complete R&R up to the crest level of dam (245.13 m) before June 03. (CENTRAL CHRONCLE 051002, 150902, *DAINIK HINDUSTAN* 090103)

Opposition to Arbitrary Rules on Draw Down Land Displaced Adivasi and farmer families of 44 villages affected by Tawa Dam on Tawa river, a tributary of the Narmada River declared their opposition to new arbitrary rules of MP Water Resources dept. demanding its immediate withdrawal. According to Kisan Adivasi Sangathan and Samajwadi Jan Parishad these new arbitrary rules spell doom for the displaced adivasis and farmers as it seeks to deprive them of their right to cultivate the Draw Down Land. The voices of opposition were also heard from those displaced by Gandhinagar Dam over river Chambal. (SARVODA PRESS SERVICE 200902)

HYDRO PROJECTS

NHPC'S TEESTA LOW DAM III: SCRAP THE ILLEGAL PUBLIC HEARING

A number of organisations, including NEPSON has written to Union Ministry of Environment and Forests that the public hearing that was conducted on Dec 19 2002 for the NHPC's Teesta Low Dam III was violative of legal norms on several counts and should be scrapped. The letters requested the ministry to intervene to postpone the "illegal and farcical Public Hearing and ensure that basic MEF norms are followed. Below we have reproduced some parts of the letters.

- On Nov 14, West Bengal Pollution control board issues the Public hearing notification. The notification carries no mention of the EIA, and says that only the Executive summary (ES) of the DPR will be available for public scrutiny.
- However, till the last week of Nov the Siliguri Regional Office of the WBPCB could not show the ES.
- The ES was not available in Nepali-the major local language—till Dec 6 02.
- The Section 10.4 of the Summary clearly says that the 'environmental impacts…. is being studied'. In other words, the study is not complete, and the EIA has not been finalized till the date of the compilation of the DPR, and the subsequent Public Hearing notification.
- After we challenged the legality of the Public Hearing and the EIA process, the NHPC authorities sent a copy of the EIA to the PCB Siliguri Office on Dec 9, 02, just 10 days before the hearing and 20 days after the notification! The EIA is available only in English.

Scrutiny of the EIA report compels one to believe that important information has been suppressed. In particular, we want to draw attention to the 'Report on the geological and geotechnical investigations' carried out by the Geological Survey of India, Kolkata, as part of the EIA. The report was submitted to the North Bengal University (The EIA conducting agency) in Feb 02. Apparently, NBU submitted the 'complete' EIA report in Aug 02. The GSI report was based on data collected during one full field season (2001-2). Because there was a period of just five months between the submission of this report and preparation of the EIA, a similar or parallel study could not have been conducted within this period. It is clear from the EIA that the GSI report was the sole source of geological data included in it. In this context, how can one explain non-inclusion of a crucial section of the GSI report in the final EIA? The subsection 3.5 of the GSI report deals with the project impacts during the operational phase. The EIA not only excludes this section but goes on to say that there will be 'no land environment impact during the operational phase' of the project.

Apart from this the EIA is full of incomplete/partial data:

Seismicity The EIA admits that the site-specific seismic design parameters are being 'studied' and not yet available. Because the Project area falls within the seismic zone IV, any major construction work in this zone need to have suitable seismic co-efficient incorporated in its design. If design parameters are unavailable, how can the NHPC authorities talk about construction datelines (Executive summary, DPR)?

Reservoir Sedimentation Though the Subsection 2.7 (watershed) mentions that out of 19 watersheds/sub-watersheds in the project area 5 have high and 3 others very high priority status in sediment yield index, and none of the watersheds is safe from the danger of erosion and destabilization, section on sedimentation has no data on cumulative sedimentation in view of known failures of sediment flushing attempts.

The EIA is based on data collected from a study area that extended to 7 kms upstream from the project site. Thus it ignores all watersheds beyond that point.

The EIA says that gross storage in the reservoir will be 18.36 MCM at FRL 208 m and live storage 11.57 MCM. The Hydrological data given in the DPR and EIA do not take into account the possible increase of discharge and ensuing floods caused by glacial melting. This omission poses serious questions on the credibility of hydrological computations in the DPR & EIA.

The EIA ignores the downstream impacts on the pretext that because the project is run-of-the-river, there will be no additional danger of floods downstream. The fact remains that the project will cause impoundment of water on a significant scale on a glacial river, in an area with perennially unstable valley slopes and with watersheds with high sediment yield index. Besides, the construction of the reservoir and continuous storage of water will increase pore pressure on the adjoining slopes, leading to toe erosion and slope destabilization. All these factors will affect the discharge and the sedimentation processes, may lead to the weakening of the barrage structure & cause serious downstream impacts.

Throughout the EIA, there are numerous mentions of Environment Management Plan. EMP is not available for scrutiny. How can we be expected to comment on the project, if the EMP is not available?

The letter concluded "We object to the EIA process on the grounds that it lacks transparency, is illegal and based on self-contradictory, inaccurate, incomplete and partial data. We object to the attempts at suppressing/withholding crucial information in the EIA. We object to the Teesta Low Dam Project Stage III on the grounds that no development project can stand on the bedrocks of falsehood and non-transparency, and demand a stop to the project activities till an impartial, comprehensive and truly participatory EIA process is completed." (NESPON 1202)

NHPC's Chamera Coffer dam washed away 500 m stretch of the coffer dam at Bagga in Chamba district in HP built by the NHPC was washed away by sudden rise in water level of Ravi River after heavy rains in the catchment area. The coffer dam was built for diverting water to another portion of the river via 3 km long tunnel for construction of 300 MW Chamera 2 dam.

- R&R plan for 192 families displaced years back by Chamera I and 120 families from Chamera II is likely to be cleared soon. (THE TRIBUNE 080902, 170902)

Nathpa Jhakri dam to be 65.5 m high The Himachal Pradesh govt has given Nathpa Jhakri Power Corp in-principle approval for raising the height of the dam of the Nathpa Jhakri HEP from 60.5 m to 65.5 m. The state would get 86 MW of extra (21.5 MW) power in addition to 12 % of free power as envisaged in the project agreement. In another move, HPSEB, which recently received the TEC for its 2x50 MW Uhl-III HEP, will incur capital expenditure of Rs 600 M spread over four years for the construction of the modified horseshoe shaped 8 477 m long 4.15 m finished diameter head race tunnel. The project is slated for commissioning in March 2007. (Projects Monitor 211002)

Additional funds for Baspa-II The Rs 2.67 B incremental cost of the 300 MW Baspa-II HEP, as per the revised estimate, has been fully tied up, it is claimed. Jaiprakash Hydro-Power Ltd is implementing the project. Jaiprakash Industries will bring in Rs 810 M as equity and banks and the original consortia of creditors will contribute Rs 1.67 B as loans; the balance of Rs 190 M would be accounted as exchange fluctuation. The HEP is now rescheduled for commissioning in July 2003. The management is trying to complete the project by next March. As a result of delayed implementation the cost of the project has gone up from Rs 13.45 B to Rs 16.12 B. (Projects Monitor 161002)

Uhl III work starts The work on the 8.28 km long headrace tunnel of the 100 MW Uhl III has been started. The CEA clearance to the project was given in 1987 for Rs 976.6 M cost, which has gone up five times now. The CM claimed that the PFC has promised to fund the entire project. The first unit of 50 MW is to be commissioned in Dec 2006. (THE TRIBUNE 171002)

Uttaranchal Hydro Policy The new Uttaranchal Hydropower policy has opened the doors for an enhanced private sector participation in generation. The units in the categories of 5 MW, 5-20 MW, 20-25 MW and 25-100 MW were considered ideally suited for the state owing to geographical conditions and govt proposes to enhance the role of private sector in such projects, said the chief secretary. The govt would continue to grant the mega-hydel project status to all units with capacities over 100 MW. HEPs up to 25 MW had been earmarked for private sector participation only. (THE TRIBUNE 171002, POWER LINE Oct 02)

IFCI-NHPC-MECON tie up Industrial Finance Corp of India has roped in NHPC and Mecon for providing the service of "lender's engineer' to infrastructure projects after IFCI signed MoUs with these organisations recently. "NHPC desires to provide services as lender's engineer for various hydro projects financed by IFCI. The job involves all the services required for the success of the project during financial closure, project implementation and post completion stages", IFCI sources said. The two companies would also participate in projects being developed in the private sector, as well as those by state govts. (BUSINESS LINE 070902)

Powergrid contract for Vishnuprayag Powergrid has secured a contract from the Uttar Pradesh Power Corp for turnkey execution of a 335 km long 400 kV double circuit transmission line from Vishnuprayag to Muzaffarnagar. The estimated project cost and consultancy fees are Rs 2.8 B and Rs 420 M. (THE HINDU 070902)

DAMS IN THE NORTH EAST INDIA

Demand to stop Pagladia dam The Nalbari district committee of All Bodo Students Union has strongly opposed and condemned the ongoing construction of Pagladia dam by the Brahmaputra Board ignoring all the protests of the affected people. The project is submerging thousands of Ha of agricultural land. The committee has urged the Central govt to stop the project. (NE TIMES 261002)

Growing opposition to Tipaimukh dam The Committee Against Tipaimukh Dam, a committee formed by various people's organizations to create mass awareness on the negative impacts of big dams and to mobilise public opinion for resisting the construction of the controversial Tipaimukh High Dam, which is likely to cause displacement of over 40,000 people. The Union power Ministry has continued to pursue the construction of the controversial dam despite the continued opposition from the affected people due to submergence of cultivable land, many important historical and legendary sites (lakes, waterfalls, etc.) and sacred groves with vital cultural and spiritual significance to the communities, destruction of rich biodiversity, etc. which is threatening the peoples' right to life and livelihood. Various representatives from Committee Against Tipaimukh Dam, NWUM, NPMHR, UNC, ANSAM including the ZU, ZWU, ZSUM, ZYF called on the Governor and the CM of Manipur to apprise them about the feelings and stand of the people regarding the construction of the Tipaimukh Dam. The Governor said all have the constitutional rights to

preserve their cultural identity. He said he knows Barak Waterfall and Zeilad Lake are your cultural heritage. The CM, O Ibobi Singh while listening to the peoples concern shared that a project of such magnitude should very must have a wide consultation with the people who are to be adversely affected by the Dam. He also mentioned that the local representatives should be informed so that he can be further briefed in detail about the Dam.

- Five Naga organisations of Manipur have petitioned the Centre to shelve the Tipaimukh dam, citing threats to the existence of 18 Zeliangrong Naga-inhabited villages and several sites held sacred by the community. The organisations said in a memorandum to Union power minister, "The Tipaimukh project was not conceived with the interests of the tribal people in mind. We appeal to you to shelve this project once and for all, failing which we will take a more stringent stand." The 1 500 MW project is to be executed in Churachandpur district in Manipur. Manipur and Mizoram have been promised 12 % of the output as royalty, but critics have long been warning that the dangers far outnumber the potential benefits. The Naga leaders claimed that the dam would submerge arable land in 55 villages, directly affecting a 40 000-strong tribal population. The site chosen for the dam on the Tuivai river was geographically under the Taithu fault and prone to intense seismic activity. The organisations are United Naga Council, Manipur; Naga Women's Union, Manipur; Committee against Tipaimukh Dam, Manipur; Naga People's Movement for Human Rights, All Naga Students' Association, Manipur. The Naga organisations said the indigenous tribal population should not be denied the right to information, environmental assessment and participation in any development project that affects their livelihood and dignity. "The dam cannot be allowed to be constructed if it is inevitably going to destroy one section of society. Sustainable development is not possible by forcing some people to sacrifice for others."
- Citizens Concern for Dams and Development have demanded that the MoU signed by the Manipur govt and Tipaimukh DPR be made public and till informed public scrutiny of the project is not accomplished, the project should not be taken ahead. CCDD has demanded that the project must follow WCD guidelines. (Manipur Mail & The Imphal Free Press 230902, DAILY TELEGRAPH 211002, CCDD Newsletter *Ruonglevaisuo* 0203)

Myntdu Leiska HEP in high seismic zone The Meghalaya govt is expecting the President of India will lay the foundation stone on Oct 25 of a 84 (2X42) MW Myntdu Leiska HEP envisaging construction of a diversion dam of 59 m height at Leiska, which is junction of three rivers and a 4 km long tunnel. The preliminary investigation was started in 1974 under the Assam SEB. MeSEB carried out the detailed investigation during 1980-95. According to the project manager, the location of the HEP comes under the high seismic zone V. During construction period, environmental monitoring of water quality is a must, as the pH value of the river water is quite low during the pre-monsoon and post-monsoon period. Mine drainage to the river is the main cause of concern for this project, which is expected to generate 368 MU per annum. Myntdu on the southern slope of Meghalaya is a south flowing river. The project to be completed in five years is estimated to cost about Rs 2.7 B at 1998 price levels with annual escalation at the rate of 6 %. The project will submerge of 80 Ha. (ASSAM TRIBUNE 231002)

Arunachal sells power to North India Arunachal Pradesh has commenced the sale of 50 MW of power to Punjab, Haryana and Delhi at a rate of Rs 1.95 per unit, via the PTC. The contract will yield Rs 650 M to the state Exchequer. It will meet the requirement of the northern states from the 405 MW Ranganadi HEP at Yazali in Subansiri district. Against a quota of 117 MW of power it is authorised to use, the state draws only 20 MW of power. This is the first time that a northeast state is selling power to the north. (Project Monitor 161002)

NE hydroelectric power scenario The Dept of Development of North-Eastern Region have a detailed account of the power scenario in the NE region.

MW

State	HEP Potential	HEP Developed
Arunachal Pradesh	50 328	686
Assam	674	250
Manipur	1 784	105
Nagaland	91	1 574
Mizoram	2 196	Nil
Meghalaya	2 394	185
Sikkim	84	4 286
Tripura	21	15
TOTAL	**63 257**	**1 416**

The DONER report said that the HEPs under construction in the region would add 387 MW of power. The projects under construction include the 100 MW Karbi Langpi Project, Dhansiri Project and Kopili II in Assam. The first two projects are in the State sector, while the third one is being executed by the NEEPCO. The other HEPs under construction in the region include Myndtu Project in State sector in Meghalaya, Likim-Ro-III in the State sector in Nagaland, Tuirial Project executed by the NEEPCO in Mizoram and Loktak downstream project executed by the NHPC in Manipur. The report revealed that the HEPs to be executed by the NEEPCO and NHPC, which are in Stages-I and II, would add 22 795 MW of power in the region. The report said that three projects, Kameng and Subansiri (Lower) in Arunachal Pradesh and Tuivai in Mizoram are in State-II of execution. The DONER revealed that during the 10th Plan period, 1 359 MW of power is likely to be added in the NE, out of which