

Dams, Rivers & People

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Fifty Years Of The Kosi Project

It will be soon be 14th Jan again and a festive occasion of Makar Sankranti. This day is significant in another context also. Fifty years ago, on Jan 14 1955, first foundation stone for controlling the floods in country was laid in the Village Bhutaha, District Madhubani in Bihar. It was on this day that the then CM of Bihar, Dr Shri Krishna Sinha laid the foundation stone for controlling the floods of India's most vibrant river, the Kosi. Whether the embankments on the either banks served the desired purpose or the cost paid by the people to achieve such a flood control was justified remains debatable, we shall look into another aspect of taming the rivers in the Gangetic plains.

As a result of embanking of the Kosi, some 386 villages spread over four districts of Saharsa, Supaul, Madhubani and Darbhanga and 13 blocks, namely Basantpur, Kishanpur, Supaul, Nirmali (including Bhaptiahi), Nauhatta, Mahishi, Simri Bakhtiyarpur, Salkhua, Laukahi, Marauna, Ghoghardiha, Madhepur and Kiratpur were trapped within the two embankments of the river and the waters of the Kosi passes over these villages every year. When the construction started, the people got alerted and before the people could raise the demand for rehabilitating them, it was already 1956. By then, the construction was completed till Nirmali, some 50 km S of the Indo-Nepal border.

The govt, however, was assuring the entrapped people that after construction of the embankments, there will be only a marginal rise of 4 inches in the flood level within the embankments and there was nothing to be worried about. The people, however, maintained that the land level around the Kosi was tilted toward the west and any rise in the flood level would spell doom for those trapped within the embankments. Govt wanted to hush up the R&R issue. In a meeting of the Kosi Control Board at Patna, on March 2, 1956, the members of the Central Water Commission (it had another name than) opposed any move to resettle the embankment victims on the plea that it would set up a bad precedence and that the people would start demanding rehabilitation in all such projects. Good sense, however, prevailed and the rehabilitation issue remained alive. The people hadn't broken their silence till then.

The floods of the Kosi in 1956, devastated the life within the embankments and, more or less, cleared the picture of days to come for the embankment victims. The extent of waterlogging outside the embankments was also amply defined since many villages were victims of the stagnation of rainwater that could not enter the river because of the embankments. A movement to rehabilitate the villages trapped within the Kosi

embankments gained momentum in 1957 but, by this time, the E embankment was completed till Mahishi and the W embankment till Bhanthi, both in Saharsa district. A trap was already laid for some 304 villages till then. As the resistance grew, the govt at a cost of Rs 112 M prepared a rehabilitation package but later, it was found that this cost was disproportionate to the cost of the project itself (Rs 370 M) and hence the plans were dropped but the pressure continued to mount. This resulted in the announcement of a proportionate package of rehabilitation worth Rs 21.2 M. Deep Narain Singh, then Bihar Minister of Irrigation, made an announcement (Dec 3 1958) in the Vidhan Sabha that, (1) The govt would provide land to the victims in the flood protected area, close to the embankment, (2) Govt would arrange land for the services like schools, roads etc, (3) Rehabilitation sites will be provided with tanks, wells, tube-wells for water supply by the govt, (4) House Building Grants would be made available to the victims, and (5) govt would ensure easy access to the fields

of the farmers by providing adequate number of boats. Many elderly persons in the area suggest that they were also promised jobs for, at least, one person per family in the Kosi Project. There is, however, no documentary evidence to substantiate this claim.

Only 70 villages were resettled till 1960 and that meant that another 9 years would be needed to ensure rehabilitation for all the embankment victims. Till 1972-3, only 32 540 families of the total of about 45 000 families were given the first grant for constructing the house; 10 580 families were given the second instalment and none had got the third and final instalment. Besides, these embankment victims were expected to go their old villages for farming. This arrangement was not a workable proposition. Slowly, the rehabilitation sites got waterlogged and the people returned to their old villages. The govt interpreted this retreat of the villagers as their affection to the ancestral property. Thus, the rehabilitation process was closed much before it could actually be completed.

It was not possible to physically rehabilitate the victims of the Kosi Project for the simple reason that it is impossible to arrange for so much of land in this thickly populated area. This was probably the reason that Shri Krishna Sinha had some plan for economic rehabilitation of the people in his mind. He was of the view that not all the land within the Kosi embankments would be ruined as a sequel to the construction of the embankments and that agriculture would continue to be practiced there. It was in this background that the govt

The members of the Central Water Commission opposed any move to resettle the embankment victims on the plea that it would set up a bad precedence and that the people would start demanding rehabilitation in all such projects

appointed a committee, in 1962, to look into the problems of agriculture, health, industry, revenue collection, extension of securities and cooperation. The Development Commissioner of the State, the Land Reforms Commissioner and the Chief Administrator of the Kosi Project were members of the committee. This committee did not perform. Then, in 1967, another committee was constituted under the chairmanship of Kosi Area Development Commissioner whose job was to suggest programmes for the embankment victims in the sectors of agriculture, cooperation, industrial development and economic rehabilitation. This committee, too, did not function. In 1981, another committee under the chairmanship of Chandra Kishor Pathak, former chairman of Saharsa District Board, was constituted to look into the problems of economic rehabilitation of the embankment victims. This committee gave its report in 1982 and the govt accepted its recommendations in 1987.

Based on the recommendations of the Pathak Committee, the state govt constituted Kosi Pirit Vikas Pradhikar (Kosi Sufferers Development Authority) in the same year. While recommending the constitution of the Authority, Bindeshwari Dubey, then CM, had asserted that there might not be any other place in the country where so many people are exposed to the fury of the floods of a river. These people had lost all the hopes of their betterment and his 'determined govt' was committed to their overall development so that happiness would dawn on them.

But, since its inception in 1987, the Authority of the 'Determined govt' remains a defunct body. It does not have a building or an office of its own. It has no vehicles and 'deputation employees' man the office of the Authority. It has no budget either. At best, it can request the other depts to do certain things for the embankment victims. It has some chairs and tables in the Vikas Bhawan at Saharsa where its employees indulge in gossiping in case they choose to come to the office.

If we forget the man on the street in Saharsa, most of the govt employees, too, do not know if there is any establishment like the Kosi Sufferers Development Authority in the town. The Authority had taken a decision, way back in 1989, that the Ghat system would be withdrawn for those living within the Kosi embankment to ensure their free movement to their villages. This could not be enforced. The Authority recommended to the Relief and Rehabilitation Dept to provide free boats to the embankment victims, at least, during the monsoon season. It could not get that favour. Most of the primary schools within the embankments do not have roofs over their buildings. Who will go to study there and who would teach in such places? The doctors and the employees of the Health Dept do not visit the

Health Centres and they cannot visit there during the rainy season even if they want to because of heavy currents in the river. Who will get the treatment and who then will treat them? It is written in the provisions of the Authority that 15% of Class-3 and 4 jobs in the districts that have benefited from the Kosi Project would be reserved for the embankment victims of the Kosi. Nobody has received jobs with that qualification so far, not even in the Kosi Sufferers Development Authority. There is no electricity, no pucca roads, no college, no hospitals, no cinema house, no bank, no block or any other office of the govt and there is no sign of any modern development within the Kosi Embankments. No outsider wants to have marital relations within the embankments. It will be hard to feed the families if employment is not available in places like Delhi, Haryana, Punjab or Gujarat. Struggling for the rights is no more on the agenda of the NGOs and political parties have no time left for such trivial issues.

Questions are asked how it is possible that the people are suffering silently for almost 50 years without any protest and how does a govt in any civilized society can desist from its obligations to the people?

Nobody believes the plight of the around 8,00,000 victims of the Kosi Embankments in 386 villages spread over 0.125 Ha. In the absence of such an understanding, there is no point in expecting that anybody would do something for the betterment of these

unfortunate victims of 'development'. Instead, questions are asked how it is possible that the people are suffering silently for almost 50 years without any protest and how does a govt in any civilized society can refrain from its obligations to the people? Instead of protesting, the people chose the easier option of migrating to distant places to look for employment and the successive govts were happy appointing committees that they knew were going to be defunct.

It is in the air that some offices have been opened in Nepal to investigate the proposed Barakhshetra Dam on the Kosi that is expected to solve all the flood problems of Bihar and the govt has given a grant of Rs 290 M. One wonders whether there is any space for those trapped within the embankments of the Kosi in the project? Will the cost of their rehabilitation be included, at least, in the proposed project costs or will they be destined to doom, as usual and for all times to come? It is not possible that these forgotten victims of the Kosi Project would ever find any space on the agenda of the political parties who would insist that economic rehabilitation of these people should be a precondition for the proposed Barakhshetra Dam on the Kosi. If these people do not have any space in the proposed Barakhshetra Project, then it is immaterial whether the office is opened in Nepal or the USA.

However, it is a festive occasion today and it is not proper to look for skeletons in the cupboard.

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QUICK RETURNS FROM THE SRISAILAM RIGHT BRANCH CANAL

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(Not to scale)

Construction of the 198-km lined Srisaillam Right Branch Canal project was taken up in 1981 to store 0.538 km³ of Krishna water regenerated by return irrigation into two balancing reservoirs to irrigate 76 890 ha in Kurnool and Cuddapah districts of Andhra Pradesh. The farmers have to depend on rainfall or own wells for the kharif crop. Three-fourth of the command area gets water for a single crop in rabi by gravity flow from the Gorakallu reservoir and the remaining by the Owk reservoir. Work couldn't be completed with the initial loan by the World Bank owing to the finding of the Geological Survey of India that the Gorakallu reservoir site is highly leaky having been subjected to extensive earth movements in the geological past and development of limestone caves. This has happened due to the tendency of decision makers deciding to push their pet ideas without bothering for technical feasibility and by influencing the funding agencies.

Under the irrigation sector reforms of the Govt of AP, the WB issued a fresh loan of US\$ 175 m in 1997 for completing the main canal and the branch canals and about 50 km of new feeder roads by 2004. To prevent large-scale seepage of canal water while crossing the Gorakallu valley, the French STUP Consultants Ltd had to be engaged to design a 3.4 km aqueduct/ siphon (STUP, 2001). While the WB-component of the work is nearly complete, farmers get no irrigation water for want of construction of the balancing reservoirs. While the Owk reservoir could be constructed with the loan provided by the National Bank for Rural Development,

work on the Gorakallu reservoir couldn't be taken up for want of solution to the technical problems & willingness of the agencies including the WB to fund the work.

Our work has indicated that apart from submergence of over 15 km² of cultivable land, forestland and a tribal settlement, the adverse environmental effects to be caused by the Gorakallu reservoir include danger of land subsidence owing to collapse of the underlying cavernous limestones, possibility of reservoir-induced seismicity and high rate of siltation. The underground storage space available at the proposed reservoir is more than adequate to store the entire water proposed to be stored at surface. In view of the near-impossibility of constructing the reservoir, it would be worthwhile if there were a change in the project to construct artificial recharge structures in a small area to store water in the underground and thereby save major portion of land from submergence under the proposed reservoir. This change allows the project to be completed soon at a much lesser expense and allows farmers to get assured groundwater for irrigation for two crops a year.

UP Example The strategy proposed is similar to the one implemented in the Madhya Ganga Canal Project between the upper and lower Ganga canal commands in Uttar Pradesh, which was for long depending exclusively on groundwater for irrigation leading to steep decline of groundwater levels and increased pumping costs. The option to provide canal water to this region by storing excess flood flows of monsoon season in a reservoir had to be differed for want of suitable reservoir site. The Irrigation Dept and the WALMI in consultation with IWMI and WRD & Training Centre of Roorkee University have taken up the construction of the MGCP in 1989 to release excess flood flows into unlined branch canals for subsurface storage to fill the depleted aquifers. Apart from growing a kharif crop with local rainfall and canal water, the augmented groundwater through recharge was enough to grow rabi crop. A study by IWMI in the Lakhote Branch system of the MGCP in 2000 has established that the new strategy gets two irrigated crops instead of one without adverse problems such as water logging, groundwater depletion and high pumping costs due to lowered groundwater levels. It may be useful for AP to follow this strategy for the SRBCP initiated 23 years ago.

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Floods-Compensation, Not Relief

Dineshkumar Mishra, Barh Mukti Abhiyan

'I should silently face the fire and flood, I should remain thirsty and sleep without meals, I should let my children deprived of education and let my parents die for the want of medicine, and if I do not raise any voice, then I am a responsible citizen of this country. The river dumps sand up to five feet depth on my fields and it is a long time that I grew something on them.' says DN Kamat of Suriahi of Madhubani district. His village is located on the banks of a river Bhutahi Balan (the only N Bihar river embanked on only one side), that was embanked on its right bank and all its water along with sand is pushed on to the left submerging 54 villages.

The rivers of N Bihar are heavily charged with sand / silt. This causes meandering of the rivers. Most of these rivers are jacketed between embankments and the rivers meandering within the embankments often attacks and erodes the embankments and tries to come out and attack the population in the 'protected' area. Since the river builds up its flood level before breaching the embankments, it is no more a normal encroachment of the banks, it is a deluge and the people face a surge of water, which destroys whatever comes in its way and leaves a bed of sand behind. That is an annual event for almost all the rivers of N Bihar.

There are about 385 villages within the Kosi embankments, 66 within the Mahananda and 96 within the Bagmati embankments. The details about other rivers are not known. As a very conservative estimate, there must be at least 2 M people living within the embankments in Bihar who are exposed to the flow of rivers without any protection. An equal number must be residing in close vicinity, exposed to the dangers of breaching of the embankments. The Govt claims that they were resettled outside the embankments and since they are living in the places that they are not supposed to, the Govt is not responsible for protecting them. It forgets that for most of them, the rehabilitation sites are now waterlogged and they have no other place to go. They have returned as their farms lie between the embankments.

That, however, is a long-term problem. What happens in case of a breach in the embankment when a section of the society loses all its belongings, its dwellings together with whatever agricultural land it possessed either due to waterlogging or due to sand casting? Was the protection not assured to them when the embankments were constructed?

One such fatal breach, which killed nearly 200 people (official sources put the toll at only 35) occurred on the E Kosi embankment on Sept 5 1984 and the emerging waters engulfed 196 villages from 8 blocks of Saharsa and Supaul districts. The river dislodged nearly 0.47 M

people from their homes who were forced to take shelter on higher grounds that also included the remaining length of the embankment. The water had engulfed around 70 000 ha land.

The matter was debated in the Bihar Vidhan Sabha on Sept 13-4 1984, when Jagannath Mishra charged his own Govt of dereliction of its obligation to the people and no official of the Govt had reached people since ten days. Whatever help came to the people was through friends and relatives or through organizations like the Marwari Yuwa Manch. Apathy of the Govts, laxity in the maintenance of the embankment and corruption compelled people to organize themselves. 20 000 Satyagrahis demonstrated before the office of the collector on Nov 19 demanding compensation for the losses, probe into the causes of the breach by a judge of the Supreme Court or the High Court and starting of the employment generation schemes. When the people got restive, the collector asked permission to fire, which was not granted by the CM. The matter moved to court and the last ruling came from the Supreme Court in Writ 5212-1985 on 200289, '...High Powered Committee shall be set up by the State of Bihar within two months to enquire into the Kosi Embankment Breach...' This committee was never constituted and a contempt case was filed against the State Govt in the Supreme Court on 030492. Soon thereafter, the prime force behind the case, Prem Bhai died and nothing happened after that.

How seriously the Govts take these breaches is evident from the fact that when Moloney Embankment breached in Gorakhpur in 1955, an enquiry was conducted by one of the most eminent engineers, AN Khosla and his report was published in newspapers. Now the embankments breach wholesale and nobody bothers. There were 105 breaches in 1987 in Bihar and in 2004 the figure is 60 so far. The govt passes the buck on to rats and foxes for digging holes in the embankments, 'anti-social elements', Nepal for releasing waters, and now finally on to Global Warming.

While the Govts are busy finding the excuses, the people suffer. Imagine the plight of a person whose house is swept away almost every alternate year, and whose fields are buried under a thick bed of sand, which can only grow cucumber. Says Kant Lal Mandal of village Siktia on the bank of the Mahananda in Katihar, 'I am no more a human being, I am reduced to a camel who walks over the sand. My grand father grew paddy, my father grew wheat, I grow cucumber.' It will surely help develop a sense of accountability for those responsible. They also may be questioned for the lapses and the amount that the state might be disbursing to the flood victims. At the moment, it is free for all at the cost of taxpayers.

RIVER LINK NEWS

ILR opposed by Dhaddha Eminent Sarvodaya leader Siddharaj Dhaddha said in a statement that the ILR would amount to an interference with the laws of nature and deprive the poor people of their right to water as natural resources. He said the ILR, far from solving the problem of floods and droughts, would create complications in the natural system. (THE HINDU 191004)

Consult experts: PM The PM Dr Manmohan Singh has advised the Union Water Resource Ministry to seek the opinion of experts on the engineering, environmental, rehabilitation and social aspects. (THE HINDU 121004)

ILR to hit tigers The ILR will lead to the extinction of tigers and other endangered species, said Indra Gandhi Zoological Park curator B Vijay Kumar. The Ex. Director of Green Mercy, KVR Murthy said that out of eight species of tigers three species had already disappeared from India. Serious efforts should be made to protect the remaining five. (DECCAN CHRONICLE 061004)

ILR questioned Water expert at Madras Institute of Development Studies, Prof S Janakrajan said that the feasibility and viability of the ILR are debatable as some key questions regarding the project were still unanswered. Displacement and resettlement, land acquisition, consensus of states and funding were some of them. The number of people displaced because of large projects in the country till now could be anywhere between 21.3 M to 50 M and tribal people from 38% of this figure. He said that the resettlement cost were not included in the 'estimated budget' of Rs 5600 B. He argued that spending of Rs 5600 B was unjustified, because the link canals taking away floodwaters from the Ganga could carry only 2% of the excesses. In the peninsular link, the Mahanadi is termed as a water surplus basin, but Orissa's droughts are well known. (THE INDIAN EXPRESS 281004)

ILR: Impending disaster Over irrigation and poor drainage can make the soil 'sick'. IGNP is one of the classic examples. IGNP is the largest canal system in the world with a culturable command area of 1.537 m ha. The canal system ushered a green phase in NW Rajasthan. Some villages like Baropal and Kalalon Ki Dhani became prosperous. Within merely two decades these have been reduced to abject poverty due to water logging and salinity. A report by the Central Ground Water Board states that 30 villages of the upper reaches of the IGNP canal have become completely waterlogged with thousands of families rendered destitute. The scenario is same in Sharda Sahayak Pariyojana in UP; Tungabhadra Project in AP and Karnataka; Ghat Prabha in Karnataka, Mahi-Kadana in Gujarat. Due to clayey soils Karnataka is one of the worst victim of alkali and salt affected fields along the canals affecting an area of 204 600 ha. With ILR soils of much larger areas would turn 'sick'. (Deccan Herald 181004)

Is flood abatement possible through ILR? Floods and droughts are being discussed rather simplistically with concepts such as river basins in flood being in a state of "water-surplus", drought being a state of "water-deficit", and "surplus river water flowing waste" to the sea. The ILR Task Force is using these concepts to justify ILR projects to connect river basins of the Himalayan and Peninsular regions and divert floodwater from "water-surplus" areas to "water-deficit" areas, to simultaneously relieve flood and drought. The devastating floods in Assam and Bihar and in downstream Bangladesh during July 2004 has possibly prompted President APJ Abdul Kalam to reiterate his advice of ILR. Ganges is among the world's major rivers, carrying average flood discharge of 50,000 cumecs, ordinary discharge of 5,800 cumecs and a minimum monthly average flow of 1,500 cumecs. The unusually high July 2004 flood discharge is sure to exceed 50,000 cumecs. If floods are to be relieved, a significant portion of the flood flow needs to be diverted by means of a dam or barrage that feeds a canal leading away from the flood-prone region. The link canals proposed, "will be 50 - 100 m wide and over 6 m deep". A 10 m deep, 100 m wide canal for the Ganges-Subarnarekha link can carry about 1,000 cumecs. Thus the link canal will provide only 2% relief downstream of its starting point and none at all upstream. The questions that arise are: what will be the social, environmental, financial and political cost? A subsidiary question is whether the canal will be closed during the dry season, 7-8 months every year? If the answer is "Yes", then there is little justification for huge capital expenditure to relieve 2% of the flood. If the answer is "No", 1,000 cumecs will be a significant portion of the 5,800 cumecs ordinary discharge of Ganges, with which the people of Bihar will be unwilling to part. Therefore by linking Ganges with Subarnarekha, Bihar will not benefit from flood relief, but will suffer from shortage of water in the lean season, while Subarnarekha valley will receive an undesirable 1,000 cumecs during the monsoon and perhaps none in the dry season when they may want it. According to ILR TF, the Ganges-Subarnarekha link requires a 60 m pumped lift, the Subarnarekha-Mahanadi link 48 m, and the Godavari-Krishna link 116 m, and these lifts require 3,700 MW power. And yet TF claims ILR will be net producer of electricity to the extent of 34 000 MW. The fact that water can only flow down a slope makes the delivery end of a canal always lower than the supply end and if the water is to ultimately reach a higher location, lifting it will become a necessity. Also, how ILR TF claims that canals will "facilitate inland navigation from the north to south" when water is pumped over the hills is not clear. The flood prone regions of Bihar at 30 m above sea level can't provide water to low rainfall areas of Maharashtra, AP and Karnataka that are at altitudes of 400 m up unless it is pumped up. (From S Vombatkere's essay "A SHORT NOTE ON FLOODS AND DROUGHTS: LINKING RIVER BASINS")

Govt to continue river-linking project The Union Minister for Water Resources Mr P R Dasmunshi has cleared that the govt has no intention to abandon the river-linking project. He said the Govt was expecting the feasibility reports of all the proposed links by Dec 2005. The work on the linking of rivers in the peninsular region would begin first and decision on the Himalayan component would be taken up later. He said that there were so many hurdles like the environment and rehabilitation, which had to be considered before the decision was taken on the ILR. The consultations of the states were an important step was an important process for taking the decision.

➤ The Union Water Resource Minister, Priya Ranjan Dasmunshi apprised the President Dr A P J Abdul Kalam, on the ILR programme and assured him that the present Govt had not abandoned it. The minister assured the President that the project was well on track and that the UPA Govt's common minimum programme had emphasised the need for undertaking a comprehensive assessment of the feasibility of this scheme, starting with the peninsula river links.

➤ **Govt' response to SC** The Centre on Nov 1, '04 informed the Supreme Court that it was committed to implement the ILR. The Solicitor General submitted that in the Ken-Betwa link, UP and MP were involved, and, in the Parbati-Kalisindh Chambal of 243 km, MP and Rajasthan were involved. It was estimated that both the projects would cost about Rs 10 B.

➤ President Kalam has said that if the ILR is implemented then it would be the largest programme in the world and which would promote 20% growth in forest cover in the country. (THE TRIBUNE 150904, 071004 THE HINDU 071004, 021104, THE ECONOMIC TIMES, THE NEW INDIAN EXPRESS 091104)

New models of ILR? The Madurai based National Waterways Development Council team headed by A C Kamraj has prepared a ambitious project model to connect Himalayan waterways, Central waterways and southern waterways. The project proposes to have national waterways network covering the entire nation similar to that of the national highways. The water to be utilised by the national waterway project is the floodwater, which goes to the sea. The waterway runs at an even height of 500 MSL in Himalayan waterways and 300 m above MSL in Central waterways and in Southern waterways with a permanent water level of 10 m. He claimed that the water would flow from Ganga to Cauvery and vice-versa. When Brahmaputra is in spate and when water in Gangetic region is less, water from Brahmaputra region can go to the Ganges region. It is claimed that the national waterways will serve as a 15000 km long reservoir and a large area will come under irrigation. (THE INDIAN EXPRESS 030904)

➤ It is not necessary to link 30 rivers or connect the entire chain of India rivers into a garland. Such a project may be prohibitive expensive. All we need is one big canal to carry 200 000 cusecs of water from the Junction of Bihar and Jharkhand to Tamil Nadu through

the Orissa and Andhra Pradesh along the eastern coast. Somewhere near Bhubaneswar it could turn southwards and proceed along the coast up to the Thirichurapalli bulge in Tamil Nadu. This canal should flow 5 - 10 km inside the coast avoiding confrontation with the hilly features and the sea creeks. The 200 000 cusecs thus carried would serve 400 000 acres. The total water thus carried will of course, depend on the availability of floodwater. If adequate water is not available in Patna, it could be brought from the upper reaches of W Bengal. If water were available for just 60 days, the total amount thus transported would be 24 MAF. If however, the flood could be available for 100 days, then the total water transported would amount to 40 MAF. This system is more workable than the river-linking scheme because the canal would be designed to travel along the coast. The water would be able to maintain its own level and flow smoothly. There are not much hilly features along the coast. If the water were made to flow down central India, much tunneling would be necessary. The canals would not touch other rivers along the way. The water of other rivers can be stored and put to use locally. Since this project would only involve floodwaters, it will not be right to use other rivers as carrier channels. The coastal canal could be 500 m wide and 7 m deep. It could be provided with 50 m wide banks on either side. The estimated cost per running kilometer may work out to Rs 150 M and the total stretch of 1300 km can be constructed for about Rs 200 B. (THE PIONEER 180904)

Krishna – Godavari link Andhra Pradesh is going ahead with an ambitious Rs 150 B project to connect the Godavari and Krishna. The AP project envisages diversion of waters from the Godavari to Krishna through the canals. The first 250 km canal will draw 80 tmcft of water from the proposed Polavaram across the Godavari and drop it in to the Krishna, a little upstream of the Prakasam Barrage at Vijay Wada. Another 181 km canal will link Godavari to the Krishna at Nagarjunsagar and "lift" 190 tmcft from the upcoming Dummagudem dam using heavy pumps. The dams and the canals contemplated under this ambitious project will be dependent of the national river grid plan but if the Central plan materialised later, it may at most supplement the State's inter-linking. AP conceived the project, as it is able to use less than one half of its allocation of 1484 tmcft from the Godavari, which carries nearly 3000 tmcft.

➤ The AP CM performed "bhoomi puja" for the right bank canal project at Polavaram in W Godavari district. The Rs 82.61 B project to irrigate 0.928 M Ha in Krishna, W and E Godavari, Visakhapatnam, Vizianagaram and Srikakulam districts. The project would also facilitate the generation of 1960 MW of power and provide water for drinking and industrial needs of Visakhapatnam city. Godavari is the largest river in the south India and the second largest river in the country having a catchment area of 312 812 sq km.

It has an estimated dependable yield of 3000 TMC and the estimated allotment to Andhra Pradesh is 1480 TMC. The existing utilisation is hardly 739 TMC yearly. (THE HINDU 091004, THE TRIBUNE 151104)

V P Singh on ILR The former PM V P Singh said the inter-linking of southern rivers was a practical idea and should be given priority by the Centre. As sharing of river water was assuming greater proportion, the Centre should find mechanism for conflict resolutions. (THE INDIAN EXPRESS 101004)

Orissa Proposals The National Perspective for Water Development of Union Ministry of Water Resources envisages interlinking of Mahanadi-Godavari Rivers and building storages at potential sites in these basins. This part involves major interlinking of the river systems where surplus from the Mahanadi and the Godavari is to be transferred to the south. In the Himalayan Component, Subarnarekha - Mahanadi is one of the proposed links.

In the Peninsular Component, Mahanadi (Manibhadra) - Godavari (Dowlaiswaram) link is mentioned. As per the Task Force, a dam across river Mahanadi in Orissa at Manibhadra is contemplated, which is being considered for diversion of water from Mahanadi to Godavari. The diverted water will be received at the existing Sir Arthur Cotton Barrage on Godavari at Dowlaiswaram in Andhra Pradesh. The total length of the link canal is about 932 km with Full Supply Level at head and tail ponds being 74.00 m and 13.81 m, respectively. The designed discharge of the canal at the head is 627 cumecs and the canal is to be operated throughout the year.

As per the Task Force estimate Manibhadra reservoir will submerge a total area of 45 900 ha at Full Reservoir Level of 86.0 m. Forest area to the extent of 4,881 ha is likely to be submerged by the reservoir. About 90,582 persons will be affected by the proposed Manibhadra reservoir submergence. 11,176 Mcum is proposed for diversion. This link will provide enroute irrigation benefits to 0.454 M ha, of which 0.102 M ha would be in Andhra Pradesh and the rest in Orissa. In this process it will utilize 3,854 Mcum water. The link canal includes 6.3 km trough a tunnel. The total transmission loss of the link canal is worked out to be 822 Mcum and proposes to transfer the remaining 6 500 Mcum to Godavari river for the water demands of further South. There is also a provision to generate 966 MW of hydropower at Manibhadra dam. The information provided above is govt's version this needs to be verified and contested by the civil society groups. (riverlink@yahoo.com, 201204)

In Brief The Task Force on ILR has been wound up and a special cell has been set up in the Ministry of Water Resources to follow up on the ILR work, to be assisted by NWDA officers.

DAMS

Not resettled 50-75 years after displacement The representatives of Adivasi Vikas Samiti in Chhatisgarh submitted memorandum to CM and demanded proper rehabilitation of people affected from Sondhur, Dudhawa and Gangrel Dams. The affected people from these dams have not been resettled since last five decades. The CM Dr Raman Singh has directed to officials of revenue dept and forest dept to visit affected areas and submit a report.

➤ People affected by Madamsilli dam in Dhamtari district in Chhatisgarh, built 75 years ago have not rehabilitated till date. Now water from the dam is used for Bhilai Steel Plant. Now the affected people from 14 villages have united under the Bharat Jan Andolan and going to start agitation for proper rehabilitation. On Nov 16 over 200 people gathered from 14 affected villages and 24 villages from Narharpur block. 7 villages had submerged due to the dam and affected people are now spread in 14 villages. The affected people did not receive even compensation, though they are paying tax for temporary cultivation in lean season in their land. Even now they are facing prohibition for fishing in reservoir. (DESHBANDHU 300904, 251104 HINDUSTAN 281104)

Tehri work stalled, villagers refuse evacuation Work at the Tehri project has been stalled as villagers, unhappy with their rehabilitation package, refuse evacuation. While most of old Tehri has been submerged, a few pockets still remain inhabited and their closure is essential for first unit to be operational by 2005. Dam officials have been pushing for over two months to block tunnel two, which will allow submergence of the remaining areas. They have been forced to stop work as locals have refused the budge after negotiations failed. Authorities claimed the families will be given temporary accommodation before being shifted to permanent houses besides the stipulated monetary compensation but villagers say their new quarters are poorly built, lack facilities and the compensation money is far too little. "The people will not accept the closure of tunnel without proper rehabilitation. We will fight for our rights," said Anita Kandyal, a resident. Besides Tehri town, 34 villages will get submerged and 118 more will be partially affected.

➤ **Submerged Town to be adventure tourism spot** The Govt has decided to plan a tourist hub around the Tehri dam. Old Tehri, marooned by waters of the Bhilangana and Bhagirathi in the monsoon, is to be the site of adventure tourism under a Rs 6 B project, once dam starts functioning. The project would be undertaken with public private partnership and is to be completed in 6 years.

➤ **CCEA revises cost** The Cabinet Committee on Economic Affairs has revised the cost of the 1000 MW Tehri HEP-I to Rs 66.2 B. The new figure includes interest incurred during the construction phase as well as financing charges of \$124 M. The revised amount

includes the cost of essential works of the Tehri pump storage plant. The CCEA also decided to convert the Rs 5.632 B loan released by the Govt into equity with effect from 1998-9. Subsequently, the debt equity ratio of the project comes to 1:1 as recommended by the Public Investment Board. The Tehri Hydel Development Corp has raised Rs 7.518 B as the loan for power component of the project from external commercial borrowings. The PFC has provided it with \$267 M loan. The corp has so far raised Rs 27.2 B for power component. (THE TRIBUNE 230904, ANI PR 241004, BUSINESS LINE 041104, www.waterpowermagazine.com)

Protest against Pulichintala project

A massive rally was taken out on Aug 30 by Solidarity Association for struggle against Pulichintala project. The protestors were demanding that there was no need for Pulichintala project after the construction of Nagarjunsagar and Srisailem projects. They said that that it would benefit only the rich landlords of Krishna district. The dam would submerge 50 villages and over 0.1 M people would be affected. The Pulichintala project is to come up between the Nagarjunsagar Sagar and the Srisailem project. Both the reservoirs are not getting filled up for lack of sufficient water, particularly after the commissioning of the Upper Krishna project in Karnataka. Moreover, the project was being pushed ahead without a proper EIA or public hearing or without an environmental clearance. The AP High Court has intervened to stop the work on the project without before getting the environment clearance. (THE NEW INDIAN EXPRESS 310804)

Chanwali dam The Rajasthan CM has said that lands affected by Chanwali dam would be re-surveyed and balance compensation would be paid. CM said that 28 villages would get drinking water from this project with the expenditure of Rs 140 M. (DAINIK BHASKAR 261104)

Work at Pavana dam stalled Led by Baba Adhav under the Maharashtra Project Affected Parishad banner, 54 farmers displaced by the dam constructed in 1972 descended at the Pavana dam site demanding that strengthening work on the dam be stopped till they get rehabilitated. (INDIAN EXPRESS 181104)

Bansagar phase I to start from June 2005 The phase-I of inter state Bansagar project under construction at Sahdol is scheduled to be completed in June 2005. On completion, the project would irrigate 0.154 M Ha in Madhya Pradesh, 0.134 M Ha in Uttar Pradesh and 94000 Ha in Bihar. With the completion of first phase of the Rs 25.28 B project, 22 000 Ha area would get irrigation from June 2005 and it would also generate 425 MW power. Three units of the project have already started power generation and so far Rs 21.08 B has been spent. (BUSINESS LINE 070904)

Large Dams on brink of collapse Of the country's 4050 large dams, nearly 350 are between 50 and 100 years old and 188 have recently been identified as "distressed" and in need for urgent repair. 188 dams have different kinds of weakness, including leakages, leading to seepage and in need of concrete grouting or more serious problems. In others the face of the spillway show damages with the concrete shearing off. In others a flaw in the design has been detected, especially after the dam was given additional capacity. According to govt assessment, many damaged and distressed dams are in Orissa and Bihar. Among the eight troubled projects in Bihar are Gandak and Kosi. Orissa has 38 such dams including Kumbho Kalo, Damsal, Talkhol, Banksal, Rengali, Talsara and Aradei, Rihand, in E Uttar Pradesh is also in the distressed category. Besides, Andhra Pradesh has 9, Gujarat 18, Karnataka 29, Kerala 31, MP 6, Maharashtra 13 and Tamil Nadu 12. (THE STATESMAN 160904)

Dams without basin level water management in NE

The Brahmaputra Board, set up in the early 80s as part of an ambitious national plan to "tame the Brahmaputra, Barak and their tributaries," epitomises how the rivers this year have succeeded to thoroughly tame all human efforts to manage their waters. And this harsh lesson has been meted out annually. During its 17 years existence the BB has generated voluminous Master Plans of Brahmaputra and its tributaries and eight rivers of Tripura. These master plans are periodically updated. But to what end? Every scheme that the BB devised for flood control has been hijacked over the recent past by the NHPC and the NEEPCO. Every scheme has been turned in to a hydropower project while the flood control objective is paid lip service. The Subansiri and Siang basin schemes have been wrested by NHPC while the Barak Dam has been handed over to NEEPCO. No one is mentioning basin level water management. The Assam Govt squarely blamed NEEPCO for the unprecedented floods of Nogaon and Morigaon districts making it clear that uncontrolled release of water from the dam of NEEPCO's Kopili HEP was the main reason for the devastation in these two tributaries. The district admin team visited the dam and found that on July 18, the water level of the reservoir rose to 727.7 m against the crest level of 719.3 m. As per the report, the contribution from the reservoir was initially 5000 cubic meters and subsequently another 3000 cubic meters from Mynteng river joined the confluence. The combined discharged rolled down to the Brahmaputra, which was already in high spate. The Kopili dam is 40 m high and the reservoir area is about 15 sq km. But there is no control system for the operation of gates to regulate the release of water during the floods. Gate control operation is a must in such dams for saving the life and property of the people in the downstream, the govt lamented rather belatedly. No one cared to look at the DPR or the design when the dam project sought clearance. (The People's Movement Sept-Oct 04)

Tipaimukh HEP India has revived the 1500 MW Tipaimukh HEP upstream of a major river system of Bangladesh. The PM Dr Manmohan Singh has asked the Union Ministry of Power to solve the problems that are delaying the project. The project has caused huge protest in India and its downstream neighbour Bangladesh. Bangladesh has officially protested against the project, which, if implemented, will cause economic, ecological and human catastrophes. The Rs 51.63 M project is to be built on the river Barak, which bifurcates into two streams as it enters Bangladesh — the rivers Surma and Kushiara. The mighty Meghna originates at the confluence of the Surma and the Kushiara. The PMO note stressed that all statutory clearances should be obtained as soon as possible. The note also mentioned steps for getting approval for the project's investment plans. The project works, in six phases, are to be completed by 2011. The impediments to the project are the off-loading of the cost of flood moderation from the project cost, security and diversion of portions of two national highways, which will be submerged when the dam is raised on the tri-junction of Assam, Manipur and Mizoram. NEEPCO, the implementing agency, said that if it bore these expenses, the project would be uneconomical. NEEPCO said the project's security cost, necessitated by the extant militancy of the armed groups, would be Rs 4 B a year. Earlier, the project was delayed after the Manipur Assembly had raised objections. The residents likely to be affected have been staging protests, as thousands will suffer as the dam will submerge 73 villages, many sacred sites and cultivable lands.

➤ The Mizoram Pollution Control Board has informed that the Public Hearing scheduled on Sept 22, 2004 has been temporarily cancelled. Earlier the Citizen's Concerned for Dams and Development had raised objection that the PH is planned in Mizoram without the knowledge of Manipur people. (New Age-Bangladesh 170904)

Decision to raise dam height The Rajasthan Govt has decided to raise the height of Sei dam to enhance its capacity by about 550 cusecs. Sei dam is the feeder dam of Jawai dam and the water of Jawai dam is used for drinking purpose also. (RAJASTHAN PATRIKA 261004)

HYDRO PROJECTS

Manipur keen on Loktak Downstream HEP Following the stand of the NHPC that the Loktak Downstream HEP is economically unviable, the Manipur State Govt has evinced an interest in taking it up as a state project, if the Union Ministry of Power gives the nod. The State Govt has pegged the estimated cost at Rs 6.7 B and has approached the Power Finance Corp to fork out 50% of the estimated cost as loan adding that the Ministry of Finance too has been requested to fork out the required fund as Special Reconstruction Plan in phases over five years. The plan is to sell the power generated from this project at Rs 2.08 per unit. If the State Govt takes up the project, the cost of security and

road maintenance will not be reflected in the project cost. In 1999, the Project was stalled indefinitely, as the Chief Engineer of NHPC, Sher Singh was gunned down. The cost of the project shot up and the unit cost of power was pegged at Rs 7. This led the NHPC to say that the project was unviable. (Shanghai Express 191004)

Purulia plant National Thermal Power Corp may not participate in Bengal's Purulia Pumped Storage Project despite the state gov't's eagerness to rope in the central power utility. Senior NTPC officials said, "The Company is not keen to participate in the project right now. The Bengal gov't has asked us to evaluate the option of entering the project. It will be some time before we take any decision." The Purulia Pumped Storage Project is expected to have 4 X 225 MW hydel power capacity and the cost of the project is Rs 31.88 B. Out of this, 20% will come in the form of equity and the rest will be in the form loans. The project's paid-up equity is Rs 9 B. The Japan Bank for International Co-operation has agreed to provide Rs 26.19 B to the project as soft loan. It has already given Rs 6.107 B in the first tranche. The state gov't has provided Rs 164.8 M. The project, a joint venture between the NHPC and the WBSEB, was finalised after a MoU between the two was signed. The NHPC will contribute around Rs 8 B equity, while Rs 4 B will be contributed by the WBSEB. (The Telegraph 181004, THE STATESMAN 011004)

EIA full of errors The public hearing for the Pala Maneri HEP in Uttaranchal was held on Sept 3 in Uttarkashi dist. A summary of the draft environment impact assessment was placed at the hearing. A look at the EIA shows what is wrong with the entire environment clearance process. On page 17-18, the project's name has been written by hand suggesting that entire portions had been copied from another project report, the name of that project removed using a whitener and Pala Maneri written over it. The EIA says the project area falls under seismic zone-II, which is prone to shock of intensity up to 4 on the Richter scale. This is inexplicable, considering that an earthquake measuring 6.7 on the Richter scale had struck Uttarkashi in 1991, causing widespread devastation. How could the authorities have given conditional clearance to the project if it has been designed only to withstand shock of intensity 4 on the Richter scale? The Environmental Impact Unit table on page 13 claims the project will increase the natural vegetation units from 18 to 21. In the same table, the EIA says the project will cause reduction in forest area! (Down TO Earth 151004)

Nepal to join U Karnali HEP Nepal wants to partner the NHPC in the 300 MW Upper Karnali HEP that will export power to India. But the Indian authorities have been sceptical of the Nepal Electricity Authority's ability to raise funds. The project is estimated to cost Rs 22 B. The NHPC wants confirmation that the NEA will be able to pick up 49% equity in a joint venture. The NHPC has also offered to take up the project on a built-operate-

transfer scheme with the investment recoverable in 35 years. It has been assessed that the power generated from the project can be used for distribution in Uttar Pradesh and Bihar. The Power Grid Corp of India, is also likely to become partner. (THE TELEGRAPH 060904)

New HEPs in Uttaranchal The Uttaranchal Hydroelectric Corp has submitted Pre Feasibility Reports to CEA for 10 HEPs of 1427 MW. The CEA has now allotted DPR work for three HEPs to UHPL. These projects are Aracot Tuini (72 MW), Rupsiabagar-Khasiabara (260 MW) and Taluka Sakri (140 MW). HEPs, which are under survey and investigation phase, are Bawala Nandprayag HEP (132 MW), Tuini Plasu HEP (42 MW), Arakot Tuini HEP (72 MW) and Taluka Sakry HEP (140 MW). (THE HINDUSTAN TIMES 091104)

Power projects facing time overrun In the power sector, the latest anticipated cost of the 55 projects under implementation is Rs 892.02 B, against the original approved cost of Rs 703.66 B, an escalation of 26.8%. These 55 power projects suffer from both cost and time overruns, which was mainly due to problems plaguing execution of hydro projects viz, Dulhasti, Dhauliganga, Tehri and Nathpa Jhakri being under construction for over a decade. These 55 projects together would yield an additional capacity of 17 272 MW once completed. (BUSINESS LINE 231104)

NHPC Teesta 'Low' Dams: lack of transparency The Gorkha National Liberation Front and the Communist Party Revolutionary Marxist have threatened to intensify agitation if the EIA of the Teesta 'Low' Dam HEP was not published and transparency is not ensured. NHPC has taken up 132 MW Teesta low dam-III at 27th mile, Kalijhora and the stage IV 160 MW at Geille in Kalimpong sub division of Darjeeling dist with total project cost of Rs 20 B. The CPRM General Secretary alleged that the NHPC was making false claim about the EIA of stage-III, "what the officials assured before public hearing had not been honoured."

➤ **Under scanner** The Environment Impact Assessment and Environment Management Plan of the Teesta Low Dam project phase-IV is still under scanner, though a public hearing on the issue was held on 8 Sept '04 at Kalijhora. Number of NGOs and geologists had criticised the EIA and EMP on socio-environmental and geological grounds. The Centre for Studies in Rural Economy, Appropriate Technology and Environment of Darjeeling also feels that if the project was implemented based on the current EIA and EMP, it would pose a major threat to bio-diversity. While the EMP categorically mentions "No rare and endangered plant or animal species is going to be affected by submergence due to the construction of the proposed project", CREATE says that several conflicting observations are indicated in the EIA. According to the EIA, 10 endemic and 7 rare and threatened species are present in the study area. Among the 10 endemic species, five have been mentioned in the submergence

list, but the EIA says something different: "No endangered or endemic species of plants are reported from the project area". Thus the submergence list and the EIA statements are contradictory. According to a survey report of CREATE, two of the seven rare and threatened species identified in the study area also find places in the submergence list. They are *Arundina graminifolia* and *Cyathia spinulosa*. The Botanical Survey of India has prepared a list of threatened species for assessment and conservation, which identifies *Callicarpa vestita* and *Dioscorea deltoidea* as two threatened species in India. Though these were mentioned in the submergence list, yet they failed to find a place in EIA's rare and threatened species list.

➤ **Geologist slams the project** Debashis Chatterjee, a former deputy director-general of the Geological Survey of India, has described the TLDP Stage-IV undertaken by the NHPC at Kalijhora as an invitation to disaster. "The EIA and EMP documents for TLDP-IV have left many important aspects unexplained. Vital data has been omitted and their interpretations as well as consequent action plans have not been spelt out. The project, as it has been framed, is an invitation to disaster," he said at the public hearing.

➤ **Affected people ignored at Public hearing** Kiran Chhetri was anxiously waiting for his turn to voice his opinion but for Chhetri, a local youth bent on saving his village, Kalijhora, 30 km from Siliguri, the turn never came. "We do not object to the development the political leaders are talking about. But what will happen to the villagers who are going to lose their land? What will happen to our only means of sustenance — tourism? And what if the landslides increase, endangering our homes and land? Will NHPC give us the guarantee that no such devastation will take place?" said Samir Gazmer, a local youth who said that the NHPC did not inform them about today's public hearing. "The NHPC did not even inform the 11 families who will have to vacate their land. Instead, they told us not to raise any questions during the session, as they would solve the problem. Most of the people have been brought from outside, places like Mangpoo, Mangpong, Teesta and Rambhi," said another local person. "We do not have *pattas* for our land. The NHPC had initially asked us to move out and given us a verbal assurance that we would be adequately compensated. Then afterwards, it announced that since the land belongs to the forest dept, the payment has been already made to it. So we cannot demand anything," said Milan Sundas, a farmer who has been told to vacate his land. (BUSINESS LINE 070904, THE TELEGRAPH 090904, 100904 THE STATESMAN 110904)

Transfer of Salal HEP to J&K demanded The J & K CM has sought compensation for the losses suffered by the state that was unable to undertake HEPs because of the Indo-Pak Indus Water Treaty of 1960. He also demanded that the NHPC's Salal HEP should be handed over to the state as the NHPC has earned more than its investment in the HEP. (THE TRIBUNE 301104)

L Subansiri: Had to pay Rs 3 B for forestland Acting on a Supreme Court order, the NHPC has paid Rs 3 B for diverting forestland for the L Subansiri HEP. The NHPC earlier asked for a waiver of the net present value, pleading that as a public sector undertaking, it should be exempted from paying the amount. However, the court turned down its plea. In its orders of Oct 30 '02 and Aug '03, the court stated that the net present value of forestland diverted for non-forestry under the Forest Conservation Act, 1980, should be collected from the user agency and deposited in a central fund. The total requirement of forestland for the project is 4,039.3 Ha out of which 3,183 Ha is in Arunachal Pradesh and 856.3 Ha in Assam. The project faced stiff opposition from locals, environmentalists and also from two members of the Indian Board of Wildlife. Last year, former member of the Indian Board of Wildlife LM Nath filed an intervention application against the environmental clearance granted to the project by the MEF. According to the applicant, the pristine rich and dense forests are classified as tropical moist evergreen forests and are among the finest in the country.

➤ **Forest Clearance** The Ministry of Environment and Forests gave the approval under Section 2 of the Forest Conservation Act, 1980 for the diversion of forestland for the L Subansiri HEP in Arunachal and Assam. The Project is located 2.3 km upstream of Gerukamukh village along the Assam Arunachal Pradesh border on the river Subansiri. The project envisages a concrete dam with a surface powerhouse of 2 000 MW. The water shall be diverted through eight headrace tunnels of 9.5 m diameter. The Rs. 66.09 B (Dec 2002 price level) project is to be completed in six years.

➤ The MoEF has slapped 14 conditions on NHPC and the govts of the two states. The conditions include-legal status of the forestland shall remain unchanged; compensatory afforestation should be raised and maintained over non-forestland identified and handed over to the state forest depts for this purpose at the project cost. It also said that felling of trees should be done under strict supervision of the state forest dept. The conditions also stated that the site for construction of colonies should be selected at such places where minimum felling of trees is involved. Water should be made available free of cost for forestry and allied activities in the vicinity of the project; green belt, preferably of native species, of adequate width should be raised around the reservoir at the project cost. Besides, it said, reclamation of the quarry should be carried out as per the reclamation plan at the project cost under supervision of the state forest depts. Reclamation of the quarries shall be completed as early as possible and in no case later than the closure of the project, the relevant condition said. Forestland should not be used for any purpose other than that specified under the proposal.

➤ **Undermining the Environment** The experience of the L Subansiri environmental decision-making process seriously undermines the environmental governance

process. The project will use 4000 Ha of forestland, submerge a portion of the Tale Valley sanctuary, destroy an elephant corridor, impact downstream wetlands and dolphin habitat. An expert committee of the Indian Board for Wildlife noted on Sept '02; "The EIA and project documents reveal several shortcomings in the analysis of the project's impacts on biodiversity. Before taking a decision of such magnitude, it is essential that we are provided with accurate, detailed, scientific information from reputed sources." Based on the recommendations of the IBWL expert committee, the MEF commissioned the Zoological Survey of India and the Botanical Survey of India to do an additional study. But while the expert committee had asked for the complete Impact zone to be studied, the MoEF asked for only 42 Ha of Tale Valley sanctuary to be studied. The time frame given was four months, but the field surveys by BSI and ZSI lasted only six and 12 days respectively. These reports were presented to the Standing Committee of the IBWL on 6 May '03. Several members highlighted the fact that the BSI/ ZSI studies did not fulfil the mandate of the IBWL recommendations and were poor in quality. Therefore, they argued that clearance could not be granted. An application in Supreme Court was put up, referring to the 6 May 2003 meeting. IBWL had the following to say of MoEF's response. "...During the deliberations of the meeting of the IBWL, the non official members were informed that if the L Subansiri proposal is not cleared, a reconstituted IBWL would be able to clear it in six weeks." Under severe pressure, The IBWL cleared the project on certain conditions. Subsequently, minutes of the meeting were manipulated by the MoEF to reduce the effectiveness of some of the conditions imposed by the IBWL. The IBWL was dissolved to be reconstituted as the National Board for Wildlife as per the amended Wildlife Act, 1972. All the members who had opposed the clearance of L Subansiri were dropped. Since Oct '04, NHPC has received all necessary clearances from the MEF, even as their violations of environment and forest laws continue. (The Telegraph 121004, THE SENTINEL 291004, THE STATESMAN 131104, The Assam Tribune 231104)

Call to review HEPs in Arunachal Expressing grave concern over the large number of mega dams in Arunachal Pradesh, particularly in L Subansiri and Middle Siang, a delegation of organisations have demanded a sustainable and people driven approach to HEP development. The state has a series of HEPs to be implemented by NHPC besides many other proposed projects, in highly volatile seismic belt. The delegation demanded constitution of citizens consultative committee on HEPs with a mandate to review all proposals. It should be keeping in view the protection of state heritage and people's right as per traditions and customary laws and also to prevent inter-state conflict, according to an Arunachal Citizen's Rights release. The 25-point resolution has been ratified by 15 leading NGOs of the state. (NATIONAL HERALD 291104)

PCB stalls work at Parbati HEP Work on the Parbati HEP has come to a standstill with the Pollution Control Board stalling work in certain areas where mud was not being dumped properly. Muck from the tunnels was being dumped near the river or nullah beds, polluting the river water besides diverting its course. This had resulted in an increase in silt in the Pandoh Dam and machines had to be pressed into service to dredge the reservoir. There are about 24 big or small HEPs underway in the Valley. In August, about 20 labourers had been trapped in the tunnel at Bersahini after mud covered its mouth following a cloudburst. Subsequently, the state govt had asked the PCB to inquire the whole incident. It is learnt that the inquiry had brought to light violations by the construction companies, prompting the PCB to act against them. (THE HINDUSTAN TIMES 260904)

Himachal Pradesh Sutelj basin a Red Zone Known as most productive area for HEP generation, the Sutelj basin has now come under Red zone due to the various risks that these projects face due to over exploitation. Out of total HEP generation in HP about 51% is generated from Sutelj basin. The projects of about 8753 MW (35% of total remaining potential) are also under construction in the basin. Experts feel that the glaciers are sinking in the catchment areas of Sutelj basin in India and Tibet. This year an artificial lake had been created in Tibet and power projects of this basin had to shut down for several days. (DANIK BHASKAR 240904)

HEPs in Sutelj Basin

SN	Project	Installed Capacity, MW
Existing		
1.	Shangtang, Rukti, Chaba, Nogli-I	2, 1.5, 1.75, 2.5
2.	Bhabha	120
3.	Ghanvi-I	22.5
4.	Bhakra	1200
5.	Baspa-II	300
6.	Nathpa Jhakri	1500
Proposed and ongoing		
7.	Kiling lara	40
8.	Lara	60
9.	Menenadang	76
10.	Nadanglari	60
11.	Lari Yumte	104
12.	Yumte Kothang	130
13.	Changoyang Thang	140
14.	Yangthang Khab	400
15.	Khab PoOh	340
16.	Ghanvi-II	8
17.	Sunni	22.5
18.	Rampur-Behna	400
19.	Roopa	80
20.	Karang	120
21.	Titnag	100
22.	Surang	80
23.	Pooh Spiti	300
24.	Thupan Puwari	400
25.	Sangtang Karcham	225
26.	Baspa-I	210
27.	Karcham Wangtoo	1000
28.	Bhabha (Augmentation)	3
29.	Rampur	439
30.	Koldam	800
31.	Keshang	66

The World Bank Funded Nathpa Jhakri HEP in Shambles; losses in billions

Trouble started in the very first year of operations for the World Bank funded 1500 MW NJHEP. The unusually high level of silt in the Sutlej has brought to a halt three of its six units. The losses since April have been Rs 2.5 B. This includes damages during the 10 days in the August, when the project stopped because of the threat of an artificial lake bursting in neighbouring Tibet and flooding the Sutlej. For the past few days barely 500-750 MW power is being generated. By Oct 11, '04, four out of the six units of Nathpa Jhakri HEP had been rendered in-operational owing to design deficiencies detected in the turbines parts owing to silted water inflow, incomplete civil construction and non-availability of water. The two units have been badly damaged while two of others have also been facing technical problems due to silted water of the Sutlej river. In a detailed technical analysis, the CEA and CWC have warned that extensive damage to turbines and failure of vital components may lead to flooding of the powerhouse. The five-member CEA-CWC team that visited the project reported over 60% damage to underwater turbine parts.

Nod to raise dam by 5 m The HP Govt has given its nod for raising the height of the Naphtha dam by 5 m to enhance its storage capacity. The issue had been hanging fire for the last three years as the SEB has been opposing any increase in the dam height on the ground that the reservoir thus created will inundate its 126 MW Bhabha project located upstream. The Govt allowed to raise the dam height from the existing 57.5 m to 62.5 m after the SJVN agreed to construct a 1500 m long protection wall and a 1.2 km long tail race tunnel to prevent the back flow of river water into the underground power house. The Sutlej Jal Vidyut Nigam also wants the HEP to be declared a run of the river project because of its inability to meet the mandatory peaking power requirement. As such, the project is required to provide at least three hours of peaking power to the national power grid. Failure to fulfil the peaking requirement attracts penalty in the form of a lower power tariff. A minimum of 85% capacity utilisation has to be ensured to avoid penalty. The project will have three hours of peaking capacity only after raising the dam height. The SJVN is not in a position to supply peaking power as it will take at least two years to construct the protection wall and the drainage tunnel. Its present peaking capacity is for 1.5 hrs. Thus, the SJVN is now keen on changing the status of the project from partial storage to run of the river scheme. However, for such projects the peaking power requirement has to be met up to 90% to avoid penalty. (BUSINESS STANDARD 180904, THE HINDUSTAN TIMES 121004, THE TRIBUNE 291004)

Plans The HP Govt has plans to tap 10528 MW of the HEP potential by 2012. Under the plan, the projects with an aggregate capacity of 2773 MW would be executed in private, public and joint sectors during the 10th plan and 7755 MW under the 11th plan. Seven HEPs with an aggregate capacity of 322.5 MW are under execution in the state sector. Out of these, the 126 MW Larji HEP will be completed in 2004-5. A special purpose vehicle, HP Jal Vidyut Vikas Nigam, has been formed and it has been assigned the 100 MW Uhl-III, 66 MW Kashang-I and 10 MW Ganvi-II HEPs. The Govt has decided to allot 110 MW Sainj, 13 MW Suil and 6.5 MW Sal HEP to the SEB. The 3 MW Holi HEP in the Bharmour has been completed. (THE TRIBUNE 181004)

Hydro subsidiary The Himachal Govt has set up a corp to harness the HEPs in the Yamuna basin. The new Pabbar Valley Corp will be a subsidiary of the HPSEB. The Pabbar river is a tributary of the Yamuna. The spokesman said, "a potential of 500 MW in the Yamuna basin has been identified of which 79 MW has been tapped." Swed Power, a Swedish power company, has prepared the feasibility report of the 86 MW Sawra Kudu Project to cost Rs 4 B.

➤ **HEP contract cancelled** The HP Govt has decided in principle to cancel the allotment of 70 MW Dhamwari Sundah HEP to private company and assign it to the newly set up Pubbar Valley Corp. The CM said that the allottee, Dhamwari Power Company, had failed to take the necessary steps for the implementation of the project in accordance with the MoU. The validity of MoU had also expired. A notice had been issued to the company and further action in the matter would be taken after receiving the reply.

➤ **Delay of HEPs** The Himachal Pradesh Jal Vidyut Vikas Nigam and the Pabbar Valley Vikas Nigam were created as the SEB has not been able to execute projects in a time bound and efficient manner. Cost overruns and delay in execution of major projects have over the years become a common feature in a board. At present, there were over 30 ongoing schemes the execution of which was behind schedule and the time overrun ranged from one year to 18 years. The increase in cost, including interest, because of delay amounted by Rs 5.85 B. (BUSINESS STANDARD 020904, THE TRIBUNE 2511004, 191104)

Three private HEPs The HP Govt signed a MoU with private companies, which will build, operate and maintain three HEPs. The 100 MW Tidong-I HEP located in Kinnaur dist was handed over to Nuziveedu Seeds, Hyderabad. The 60 MW Sorang HEP in Kinnaur dist has been given to Himachal Sorang Power Pvt Ltd while the 70 MW Budhil HEP in Chamba dist has gone to Lanco green power Pvt Ltd. These projects have been handed over to the private companies for 40 years on build, own, run and maintain basis. The total cost of the projects is Rs 11.5 B and could generate 980 MU. It has been specified in the MoUs that the developers will

spend 0.25 to 0.5% of the project cost in the vicinity of the project for the benefit of local population. The projects could bring an annual income of Rs 300 M during first 12 years and 450 M during the next 28 years at the present tariff rate of Rs 2.5 per unit. The cabinet also approved the allotment of 27 small HEPs with an aggregate capacity of 88 MW to 27 private sector companies to bring an investment of Rs 5 B over the five years. (THE HINDU, BUSINESS STANDARD 250904)

LNJ to offload Malana stake to Norway's SN Power

The LNJ Bhilwara group announced offloading of 49% stake in Malana Power Company to Norway based hydro Power major Stratkraft Norfund Power (SN Power) for Rs 2.07 B. The two companies have entered into a joint venture agreement for promoting HEPs. The LNJ group will hold 51% equity stake while SN Power will hold 49% in MPC as per the agreement. The LNJ Bhilwara group is trying to set up the 192 MW Allain Duhangan HEP. (THE INDIAN EXPRESS 201004)

Rampur HEP Decks were cleared for the signing of an agreement for the 434 MW Rampur HEP with the HP Govt assuring adequate number of projects to the Sutlej Jal Vidyut Nigam to ensure gainful utilisation of surplus staff and Union Power Ministry softening its stand on the repatriation of the deputationists. Regarding the repatriation of the over 700 employees and officers ordered by the SJVN earlier, it was decided that a subcommittee of the board would be set up to ensure gainful utilisation of the surplus staff. The agreement was signed in early Oct '04. The project is to be implemented as a run of river scheme, the project will utilise de-silted tailrace water of the upstream NJHEP and is estimated to cost Rs 19.262 B. The SJVN will fund the project from its own resources. The Centre and the State will only contribute if the SJVN fails to arrange the requisite funds internally. For extra share the partners will have to contribute equally. The power will also be shared on the basis of actual equity paid. For execution of the project, minimum 40% of the approved manpower will be taken from HPSEB on absorption and deputation basis. The absorbed employees will be treated at par with SJVN employees and all the rules and regulations will be applicable them. (THE TRIBUNE 051004, THE HINDU 211004)

Karcham Wangtoo: Locals concerned Residents of villages around the 1000 MW Karcham Wangtoo HEP in Kinnaur has said that they were not being taken into confidence by the company and the govt authorities, who were violating norms. The residents of the area under the Pagramang Vikas Samiti had boycotted the public hearing convened by the HP Pollution Control Board on Nov 9, '04 as their interests were being ignored. Despite the repeated pleas that the EIA and EMP documents be given in Hindi and sent to every village, so that the people are made aware of the implications of the HEP, the authorities have paid no attention. Villagers said that almost 15000 people would

be affected directly and indirectly due to the project, the SPCB was duty bound to take the locals into confidence. The existing EIA was providing incomplete and misleading information. Public hearing flopped for the third time with the Kinnaur locals boycotting the proceedings at Tapri and Karcham. The govt's effort to push through the meeting on vague grounds this time failed to yield results, with the people raising objections on the spot and leaving the meeting therein. The people were also demanding that the executing company should first get the No Objection Certificates from the gram sabhas, where people are getting affected and should adopt the boring technology instead of blasting. (THE HINDUSTAN TIMES 101104, THE TRIBUNE 251104)

NEWS FROM NARMADA VALLEY

PM emphasises rehabilitation? In a letter, the Prime Minister has requested the Union Water Resources Minister to visit the Narmada Valley, once the concerned State Govts submits the details on rehabilitation, before permission could be accorded to raise the height of the dam. Taking note of the fact that it is proposed to raise the height of SSP from 110 m to 121 m, the PM emphasized that once the responsibility on rehabilitation was fully met, raising the height could follow the established procedure. The PM also sought to draw the attention of the minister to the fact that the NBA has been agitating that the terms of rehabilitation, as stipulated in the directive of the Supreme Court are not being followed. (PM Office PR 221104)

'We'll chase Narmada oustees from our land' The Farmers from Dhantej and Tulsipura villages of Vadodara in Gujarat had sold large tracts of land to the Gujarat govt to resettle the Sardar Sarovar Project oustees in 2002 but never received the full amount that had been promised to them. So now they have returned to these lands and started tilling patches. With govt officials accused of encashing the cheques meant for the farmers, these tillers say they will not allow any oustee to settle on what they see as their land. Farmers point to the barren patches in the area and say it would take a lot of hard work to make them fertile again. "We did not bother about these patches fearing that someone else would come and stake claim as we had already sold it to the SSPA," says a farmer. (THE TIMES OF INDIA 041004)

High price for wasteland smacks of scam Nearly 200 acres of land in the Dhantej and Tulsipura villages in Savli taluka of Vadodara district was acquired by the state govt in 2001 to rehabilitate oustees of the Sardar Sarovar project. The Sardar Sarovar Punarvasat Agency acquired the land that was valued at Rs 22,000 per Ha for a whopping Rs 1,85,820 per Ha! The govt officials involved in the transaction withdrew money from the exchequer but did not pay the entire money to those from whom land was acquired. In fact, persistent complaints from farmers who sold their land exposed

the scandal and now a deputy collector-level official has been chargesheeted by the police along with two talatis for defrauding both the exchequer (to the tune of Rs 7.232 M) and farmers (of Rs 4.132 M). The acquired land was also substandard in quality. Much of the land is barren and in the ravines which dot the landscape in this part of the world. How did anybody think that the land was fit enough to resettle displaced farmers, wonder analysts. (THE TIMES OF INDIA 031004)

HC directs GRA to investigate R&R In the context of a PIL filed by Shri Harakchand Sand and Shri Dharamraj Jain, with regard to the displacement of Harsud town by the Indira Sagar Project in Madhya Pradesh, the High Court passed an order on 4th of October directing the GRA to investigate the condition of civic amenities and rehabilitation in New Harsud and submit the report to the High Court. The HC also directed that the GRA look into the individual complaints of the oustees with regard to inadequate compensation of houses and properties. In the affidavit filed in the High Court by the petitioners raised various questions and asked to maintain civil amenities in resettlement site. After the hearing, the divisional bench comprising of Chief Justice Shri Raveendran and Justice Shri Lahoti passed an interim Order directing the Grievance Redressal Authority for the Indira Sagar and Omkareshwar Projects headed by Shri Ravindra Sharma to visit the New Harsud site at Chanera "for ascertaining and reporting to this Court the existence or non-existence or inadequacy of provisions with regard to infrastructural facilities at New Harsud, particularly relating to water and sanitation, burial ground, schools and roads." The High Court also asked the GRA to consider the "various grievances in regard to inadequate house compensation, inadequate property compensation, non-grant of plots, etc" and to "try to extend to them as many facilities and reliefs as possible." The High Court directed the state govt ensure that "adequate drinking water is provided and toilet facilities are increased immediately on a war footing." (NBA PR 051004)

NBA: NCA information wrong The NBA has said that the information on the R&R of the displaced people which the Central Govt had put on a website was false. The website of the NCA shows the balance families under dam height at 100 m and 110 m as 'zero'. This is untrue because over 10 000 families still have to be rehabilitated. (THE HINDU 031104)

Probe in to mishandling of funds for dam oustees The Madhya Pradesh Govt has asked the Economic Offences Wing to investigate "irregular payments" totalling Rs 71.5 M in R&R of the SSP. The audit for the period March 2003 to July 2004 conducted by the CAG reveals that "the Badwani office of the Executive Engineer of Narmada Development Division-22 made irregular payments running" in to millions. Without drawing and disbursing powers. The tactics adopted by

the sub divisional office allegedly were to make payments in parts up to a limit of Rs 5000 by fudging records to show that payments had been made for many separate works entrusted to a few selected contractors without following the mandatory procedure of inviting tenders.

➤ **NVDA officials suspended** The MP Govt has suspended 37 NVDA officials in Badwani on corruption charges. This has exposed the false claims and malpractices in SSP. Thousands of complaints against corrupt officials were filed before the higher authorities and were being heard by the Lokayukta. This has resulted out of the enormous misappropriation spotted during auditing of Narmada Valley Development Authority. It is obvious that the decision to allot cash instead of land, in utter violation of law, was not to benefit the oustees but the officials, employees and a handful of political leaders who also were involved. The same however was surprisingly supported by all the authorities and none questioned it in spite of repeated protests. (NBA PR 081104, THE HINDU 191104)

No NCA clearance to raise dam height The Narmada Control Authority has suggested a timeframe of two and half months of the Narmada Valley States to complete the resettlement of an estimated 13800 families who would be displaced by the SSP dam at the proposed height of 121 m. The dam has been raised to 110.64 m. As of now, both the environmental and R&R subgroups of the NCA have not cleared the raising of the dam's height to 121 m. The NBA has said that over 10000 families are yet to be rehabilitated even up to the dam's present height. The NCA meeting in New Delhi decided to form a three-man committee to review R&R. To review the progress fortnightly, it will comprise rehabilitation commissioners of Gujarat, Madhya Pradesh and Maharashtra. It faces a stupendous task: resettling 1,200 dam oustees in Gujarat, 12,000 in Madhya Pradesh, and 600 in Maharashtra. "MP has demanded Rs 1.4 B to rehabilitate its oustees. We have agreed to give them Rs 1 B", a senior official said.

➤ **MP demands Rs 2 B** The MP govt has now asked Gujarat to pay Rs 2 B to compensate for the cost of rehabilitating nearly 12,000 families that will be displaced when the Narmada dam height is raised to 121.92 m from the present 110.64 m. This is in addition to Rs 1 B paid to MP a month ago. Maharashtra has also asked Gujarat to pay Rs 200 M to rehabilitate 300 displaced families. So far, the Gujarat govt has paid Rs 250 M to Maharashtra to rehabilitate the SSP oustees on its soil. Significantly, Gujarat had complained to the Centre a year ago that MP, Maharashtra and Rajasthan had not been paying dues of Rs 20.28 B as their share of the expenditure on the SSP. The Gujarat govt also has to pay MP govt 17% of the cost on the ISP. (THE HINDU 090904, THE TIMES OF INDIA 090904, 061004)

Rehabilitation cost should be borne by Gujarat The MP CM said at the 12th meeting of review committee of NCA that rehabilitation cost of the displaced person of

SSP should be entirely borne by the Gujarat Govt. He further said that loss of power to MP and Maharashtra due to exclusive use of irrigation bypass tunnel by Gujarat Govt should also be reimbursed. He said that the Narmada Tribunal has clearly mentioned that Gujarat Govt should entirely bear the cost of rehabilitation. Even Maharashtra Govt and Attorney General on March 5, '03 have given the same viewpoint. As Gujarat didn't agree, the case has been put before the review committee. MP rejected the idea of arbitration by Gujarat Govt. (Central Chronicle 100904)

MP SPV for SSP To bridge the resource gap relating to the Sardar Sarovar Project, the MP Govt has formed a special purpose vehicle called Narmada Valley Corp Ltd, with a capital outlay of Rs 35 B. The company will seek a Rs 15 B loan under the Accelerated Generation and Supply Programme from the Power Finance Corp & the Rural Electrification Corp. It will deal with power purchase, sale and revenue generation for all the Narmada projects, including SSP, Narmada Sagar and Omkareshwar. The new company will sell surplus power to the MPSEB. (BUSINESS STANDARD 090904)

MP wildlife plan for NSP dam area The Madhya Pradesh Govt has chalked out an action plan for protecting wildlife of the Indira Sagar Project submergence area. Over 40000 Ha of forests, which over 2000 wild animals of 32 species, will be submerged as the dam fills up any time now. The action plan has been prepared on the basis of the recommendations by the Forest Research Institute, Dehradun. It envisages the setting up of a national park in 250 sq km area and two sanctuaries spread over 174 sq km and 66 sq km. The Friends of Nature Society has conducted a study of the area and has listed 32 species threatened by the submergence. (THE TRIBUNE 020804)

Villages around Harsud ignored The NBA has charged the authorities with ignoring the rehabilitation norms and forcibly evicting the people from their villages submerged by the Indira Sagar Project. At the present height of 245 m, the water has entered 20 such villages that were not on the Govt list of the village to be submerged. The residents of surrounding villages have received a raw deal. (THE TRIBUNE 080904)

Barclays Bank warned on Omkareshwar funding A letter has been sent by BankTrack to UK's Barclays Bank regarding the Bank's support for the Omkareshwar HEP in Madhya Pradesh. The letter was endorsed by 100 other NGOs, including 14 groups and movements from India. The Bank track wrote that the funding for the Omkareshwar Dam was already turned down by a number of international banks and FIs, it is surprised that Barclays is willing to risk its reputation by becoming involved with this controversial project. Among the institutions that turned down the Omkareshwar project are the World Bank's Multilateral Investment Guarantee Agency, Deutsche Bank and

ABN AMRO. The Bank Track wrote that Barclays' 2003 Corporate Social Responsibility Report highlights its commitment to human rights, based on relevant UN and ILO Conventions and Treaties. It also mentions Barclays' role in the Business Leaders' Initiative on Human Rights. "We therefore wish to draw attention to the fact, that the Omkareshwar Project has already led to human right violations and that the project's sponsor, the NHPC is known to have an extremely poor track record on human rights. In light of your commitments to sustainability, human rights and the Equator Principles, we urge Barclays to re-evaluate its involvement with Omkareshwar and its sponsor, NHPC", the letter said. The Omkareshwar HEP will force up to 50000 people from 30 villages and flood over 100 sq km of forest and farmland. As per the papers seen by the Guardian, no impact study has been done and no resettlement plans have been finalised. The Indian Govt had asked the Unit Trust of India and Barclays to help arrange the finance for the dam, to run over 14 years. Barclays denied lending any of its own money to the scheme and claimed that its mandate from the Indian Govt had lapsed. (THE HINDU 031004, www.banktrack.org)

Harsud oustees demonstrate against NHDC tyranny

On the 30th of September 2004, exactly three months after the people of Harsud were inhumanly and forcibly evicted from their town - on the 30th of June, around one thousand people, of which a large proportion were poor, Dalit women affected by the Indira Sagar dam gathered to demonstrate against the tyranny and the highhandedness of the NHDC and for their rehabilitation rights and dignity. This demonstration held under the aegis of the Narmada Bachao Andolan and the Narmada Shakti Dal at the NHDC office represented the beginning of a turn-around for a people that had been pulverized by the dam building machinery, through a combination of lure, police intimidation and threat of the reservoir waters. Unable and unwilling to face the oustees, the NHDC officials locked the office and fled. The oustees then submitted a 31-point demand charter to the Sub-Divisional Magistrate, Chanera, and warned that if action were not taken immediately on these demands, the struggle of the oustees would be intensified. People raised question about not providing civic amenities in the resettlement site. Chittarooma Palit of Narmada Bachao Andolan said that this struggle is not only for our rehabilitation rights but also for our dignity. Addressing the public meeting, the speakers told their story of displacement and said that even today there are no proper public facilities available. The people blamed that the NHDC and the state govt have flagrantly violated the policy and the legal provisions for the rehabilitation of the affected people of the Indira Sagar Project. As per legal provisions, all oustees should have been rehabilitated six months before submergence, by 31st December 2003, but this has not happened till today. This injustice will not be tolerated any further and

the voices of the oustees will be conveyed all over the state and the country. The oustees also demanded that there must be a stay on the installation of gates of the dam, until the rehabilitation of every oustee is completed. The people of the 119 villages and Harsud town affected by the Indira Sagar dam had been ousted with the use of bulldozers and police force, where as another 130 villages were slated to be submerged if the gates of the dam are erected in the next few months. (NBA PR 011004)

Lower Goi not justifiable The people affected by Rs 1.89 B Lower Goi dam in Narmada valley have warned the project authorities that without completing rehabilitation with culturable land to oustees, no work would be allowed. If the agriculture land would not been available before starting the work than affected people will not co-operate with project authorities. The proposed command area of the project is 13769 Ha. While NBA has said that about 3790 Ha from the proposed command area is already irrigated, while only 7855.8 Ha is cultivable in the proposed command area. Thus agriculture field available for irrigation is only 2906.6 Ha and submerging of 9 villages for the same is not reasonable. (*Sarvodaya Press Service* 121104)

SNIPPETS FROM GUJARAT

Gujarat to displace tribals for eco-tourism The Gujarat govt is planning to forcibly displace about 1 000 tribal families from six villages. This is the second round of displacement for these families. The eco-tourism plan was meant to help the govt raise finances for the dam, which has seen huge cost overruns. There is no 'public purpose' to tourism. The Ahmedabad-based Centre for Environmental Planning and Technology has identified 13 projects for eco-tourism near the dam. There are six villages around the dam site - Kevadia, Kothi, Waghodia, Navagam, Limdi and Gora - where tribals will be affected by the eco-tourism. (IANS 111104)

ISSUES ABOUT RIVERS

River Conservation Plan A National River Conservation Plan is under implementation in 157 towns along the polluted stretches of 31 rivers in 18 states at a cost of Rs 46.88 B since its inception.

Centre proposes accord with States As part of the NRCP the Centre has proposed to put more responsibility on the States, including raising of funds, for the implementation of the NRCP and the NLCP. It is proposed that the Centre will sign a MoU with the States that will make it incumbent upon the concerned States to execute the schemes under the NRCP and NLCP since the release of funds will depend upon the implementation of the MoU. The MoU will be to allow the States to levy surcharge to raise funds and awareness generation programme meant to involve the public in keeping the water bodies clean. The MEF has decided not to sanction any projects under the two

schemes during the 10th Plan due to the shortage of funds. The implementation of the two schemes approved in 1995, has been delayed due to a number of problems.

MP proposal for River conservation The Centre has accepted the conservation of 9 rivers in 11 cities in MP under National Rivers Conservation Programme. Earlier the State had sent proposal for conservation of rivers. The Centre and the State will raise fund in the ratio of 70:30. The cities identified under this scheme are Narmada at Mandaleshwar, Onkareshwar, Maheshwar, Biller at Rewan, Shivna at Mandsaur, Betwa at Ganjbasoda, Tapti at Neapanagar, Mandakini at Chitrakoot, Parwati at Sihaore, Newaj at Rajgarh and Son at Sahdol.

Clean rivers cost more money The Union Environment Minister has told the Planning Commission that against an estimated requirement of Rs 65.5 B for the cleaning up of major rivers and lakes, only Rs 16.37 B has been provided in the outlay, leaving a deficit of Rs 49.13 B. Among projects already in motion, pollution abatement schemes for rivers at Rs 46.88 B has so far been approved by the cabinet Committee on Economic Affairs. The govt's share in this is Rs 30.66 B. Of this, Rs 9.28 B was spent till the last Plan. The current outlay is Rs 14.17 B. He asked for an increase in outlay of about Rs 4.53 B to fulfil existing commitments and a further Rs 500 M for new projects.

PPP mooted for river, lake projects The Union Environment Minister has suggested public-private partnership in implementing the national river and lake conservation programmes and setting up of a mechanism to monitor them. "The implementation of the NRCP and the NLCP has thrown up a number of issues, which need to be addressed jointly by the states and the Centre. Some of these pertain to mobilization of new and additional resources, proper utilization of funds and avoiding mismatches", he said. The NLCP, pertaining to other water bodies, is also being implemented as a centrally sponsored scheme since May 2001. (BUSINESS LINE 170804 *DANIK BHASKAR* 090904, THE HINDU 100904, 270904, THE HINDUSTAN TIMES 281004)

Yamuna The MEF has released funds for the Rs 3.872 B Yamuna Action Plan-II. In the last five years, the govt spent over Rs 10 B on YAP-I, extended phase-I and Common effluent treatment plants. But pollution in the river has gone up.

SC expert panel Finding no improvement in its decade long efforts to clean the water of the Yamuna river, the Supreme Court sets up a 10 member expert committee to suggest measures to cleanse the Yamuna river. The SC also asked the Uttar Pradesh Govt to file an affidavit detailing the steps it had taken in the past to keep the river clean. A Bench of Justice Y K Sabharwal and D M Dharmadhikari said Union Urban Development

Secretary would be the convenor of the committee. Its other members would be the joint secretary level officers from MEF, Delhi Govt, UP Govt, DJB, DDA, the three civic bodies of Delhi – MCD, NDMC and Delhi Cantonment Board – and the Delhi Industrial Development Corp. The amount spent on Yamuna so far is over Rs 10 B. Delhi Govt has spent about Rs 4 B. Rs 2.7 B was given by the Japanese Govt as loan to the Delhi Govt. (THE INDIAN EXPRESS 050804, THE TIMES OF INDIA 060804, THE HINDUSTAN TIMES 281004)

Musi project facing delay The Rs 3.44 Musi River Conservation Project got the administrative approval from the Centre in April 2003 under the National River Action Plan of the MEF. But the project did not make any headway due to delay in release of funds by the Centre. The Hyderabad Metro Water Works and Sewerage Board, which is the implementing agency for the project, sought Rs 250 M as the first instalment. The Centre released only Rs 100 M recently. The Project envisages collecting and diverting the domestic sewage and industrial effluents from 18 nalas flowing into Musi and treating them and letting the treated sewage into Musi after its meets the river disposal standards. According to the original plan, the project was to be completed within three years from the starting date. But the project is yet to take off. (DECCAN CHRONICAL 101004)

Rs 3.45 B to fight erosion The Centre will invest Rs 3.45 B in schemes to arrest erosion along the banks of the Ganga. In one of the schemes, the Centre would invest Rs 1.36 B and the States Rs 420 M. The scheme comprises a range of smaller schemes: 14 in Uttar Pradesh, 13 in Bihar, 24 in W Bengal and one each in Himachal Pradesh, Jharkhand and Uttaranchal, according to Brahmaputra Board. The Centre has already allocated Rs 89.5 M to UP and Rs 73.3 M to Bihar under the scheme. Special emphasis would be given to Maldah and Murshidabad, which witnessed the highest degree of erosion in the last couple of years. The Ministry of Water Resources has also prepared a Rs 1.67 B scheme for N Bengal and NE states like Sikkim. The share of the Centre is 90%, while the share of the states is 10%. (THE ECONOMIC TIMES 181004)

Sutlej Due to lack of funds, the Punjab Govt has not completed Rs 2.8 B Sutlej Action Plan even after 9 years. There is no sign of completing the project over the next 10 years. The Centre had sanctioned Rs 2.29 B SAP in Aug 1995 with equal contribution from the Centre and the state. Sewage treatment plants are proposed in Jalandhar, Ludhiana, Fagwara and Fillour city. Now the state has requested Centre to reduce the state's share. The SAP is also suffering from cost overrun. According to new arrangement the Centre has agreed to contribute Rs 1.817 B and the State would contribute Rs 982.7 M. The land acquisition for SAP is also not completed. At present Rs 1.427 B has been spent and none of the work has been completed yet.

Fly ash flows in to Sutlej The leakage of contaminated water from the stage-1 dyke of Guru Gobind Singh Super Thermal Plant, Ropar has been polluting the Sutlej posing a threat to environment in the region. A large amount of fly ash from the 12-ft deep dyke has been flowing in to the Sutlej in the international wetland area through the Ghanauli drain. The potable water in many areas, which get water from the Sutlej, was likely to be contaminated and water pollution also posed a threat to fish population. Despite a High Court notice and Pollution Board's instruction to the Plant, it was the third incident in the past two years when the contaminated water from the ash dumping ground had flowed in to the Sutlej.

BBMB polluting the Sutlej The Bhakra Beas Management Board has started polluting the Sutlej by throwing silt containing water from the 990 MW Dehar HEP into Sutlej since about 6 weeks. This water was earlier being thrown into Suketi Khad that used to pollute Beas River. This act of the BBMB has posed danger to the aquatic life in the Gobind Sagar lake. The Beas Sutlej Link Project managed by the BBMB was started in 1977. In this project the water of the Beas was diverted from Pandoh and made to pass through Pandoh Baggi tunnel, which opens at Baggi and the water is made to flow through 11.2 km open hydel channel and stored in the reservoir, where silt is allowed to settle. This silt free water is diverted through 13.2 km long tunnel to Slapper, where it is used in the Dehar powerhouse and then it flows into Sutlej. The BBMB authorities are violating the provisions of Water (Prevention and Control of Pollution) Act. (THE TRIBUNE 060904, 021104 DANIK BHASKAR 151104)

SAND MINING RIVERBEDS

Rollback order to ban sand mining The Kerala Govt has imposed a stay on the order issued by its Dept of Industries, to stop mining of sand. Following the Union Govt's decision to open up mining of mineral sands to the private sector, the Kerala Govt had insisted that it would grant mining licenses only to the joint sector companies in which Govt held 26% equity. Private companies had filed a case against the decision but the Govt won the case. (Down To Earth 311004)

POLLUTED RIVERS

SC panel for closure of HIL in Kerala A Monitoring Committee on Hazardous Waste set up by the Supreme Court has recommended that the public sector Hindustan Insecticides Ltd at Eloor near Kochi in Kerala should be closed down due to the pollution it creates. HIL, which makes pesticides like DDT and Endosulfan, should be allowed to reopen only if it can shift to "clean technology and new product mix", the committee said. The committee recommended that the Eloor & Edyar industrial estates should collectively pay a fine of Rs 25 M for polluting the Periyar River. (BUSINESS LINE 250804)

Effort to treat Gomti water Dividing Lucknow city into four sewage district zones, the Japan International Co-operation Agency has proposed four sewage treatment plants with a total capacity of 900 MLD. Ironically, GAP takes care of only 42 MLD presently and even with the proposed Kakraha STP of 345 MLD capacity, Lucknow will still have to deal with large volumes of untreated sewage. After the cost estimate is prepared, the JBIC will study the feasibility of the STPs, said an official, adding that change in govts or in understanding between the Indian and Japanese govts could, however, sink the project like it initially did when the project was funded by the UK gov. A Jal Nigam official said that the BOD level of discharge from nullahs was 150 – 250 ppm. When treated, the levels would go down to 30.

Eminent judges, SC's Justice YK Sabharwal and acting Chief Justice of Allahabad High Court Markandey Katju, have outlined the importance of cleaning Gomati. Now that there is a special arrangement for increased monitoring by the apex court, the state machinery would hardly be able to ignore the concern any longer. Justice Katju pointed out as much while mentioning that he had nominated Justice UK Dhaon to monitor the position in Lucknow. And, Justice Sabharwal's assurance that a three-judge SC bench was specifically monitoring 'unconventional issues' is enough to drive the point home as far as laxity on GAP is concerned. For GAP phase-2, the Govt of India has released Rs 180 M to UP gov. The total cost of the project is Rs 2.63 B and GOI was supposed to pump in 70%, with the rest being the responsibility of UP gov. (THE TIMES OF INDIA 021104)

LAKES, GLACIERS, WATERFALLS, WETLANDS

Why Rajasthan lakes remain empty In connection with the Lakes of Udaipur not getting filled despite good rains in the district, Rajender Razdan has filed a PIL in the high court. A study has been ordered to understand what are the barriers to water reaching the lakes. A committee was formed to study various Lakes of Udaipur, Rajsamand and Ajmer. The committee during the visit noted that due to soil erosion, the water flow has been affected. The Committee noted that in some areas flow into the lakes was restricted due to encroachment. Dumping of waste has resulted in the quality of the stream declining. Mines have gone deep, as a result water from nearby areas fill the mines. The decline in water has affected agriculture in the vicinity. The Committee recommended that streams and rivers shown as on Aug 15, 1947 should be declared as public land and conversions after that should be declared illegal. Drainage channels etc should be improved and proper methods of waste disposal adopted so that quality of the drainage is ensured. Construction of boundary wall for overburden is needed for which proper conditions should be imposed on mining. (durm@panchayats.org, 290804)

W Bengal plans law to protect wetlands The W Bengal Govt will frame a law to protect the 3200 Ha E Kolkata wetlands. Declared as a Ramsar site, the Govt is considering proposals to develop the marshy land as an eco-tourism destination, combining assistance from the centre, ADB and other development institutions. The wetland combining a patchwork of tree fringed canals, vegetable plots and fish ponds, along with the assistance of 2000 people daily, transform one third of the city's sewage and most of its domestic refuse in to 20 T fish and 150 T vegetables. (BUSINESS LINE 041004)

Sikkim lakes Sikkim has sent a proposal to the Centre to include its major lakes (with its heavy concentration of biodiversity and over hundred of wetlands) in the Ramsar list. Sikkim is the repository of a large biodiversity including 550 species of birds in its forest, over 227 lakes and wetlands and over 100 water systems. Amongst these wetlands, the Khechiopari Lake in W Sikkim, the Tsomgokupup and Gnathang complex in E Sikkim and Tso Lhamu, Guru Dongmar – Gyam Tso-na complex in N Sikkim have been proposed to MEF for the Ramsar list. (THE ECONOMIC TIMES 300904)

Funds crunch The National Lake Conservation Plan for the revival of major lakes has been hampered due to paucity of funds. Started in 2001 for conservation of 28 lakes in six states, the NLCP is facing a shortfall of Rs 8 B in the 10th and 11th five-year plans. Rs 4.2 B is required to achieve the target in the current Plan, of which Rs 2.2 B has been provided in the budget. By the end of 11th Plan in 2012, an additional Rs 6 B would be needed, raising the total requirement to Rs 8 B. Under the NLCP 3 projects –Ooty and Kodaikanal (Tamil Nadu) and Nainital (Uttaranchal)– are nearing completion. Some other important lakes to be taken up are Dal Lake (J&K), Powai (Mumbai), Ranbir Sarovar (Kolkata) and Mansagar (Jaipur). The MEF is yet to approve the Dal Lake proposal. (THE HINDU 041004)

China plan on Parichhu The Chinese experts have drawn up a plan to mitigate the flood threat from the natural lake formed due to the blockage of Parichhu, a tributary of the Sutlej, by a huge landslide in the Tibet few months ago. The experts are of the view that it is not possible to remove the massive blockage and the Lake will be a permanent feature. Due to the enormous size of the blockade and the rocky strata, it is not likely to give way. However, to ensure that it does not cause undue alarm next summer when water level will rise again due to the melting of glaciers, they propose to drive a channel through the blockade. The idea is to have a channel wide enough to ensure that the outflow matches or exceeds the inflow during peak summer so that the water level does not rise alarmingly to revive the flood threat. (THE TRIBUNE 061004)

Dam, Siltation aggravate Loktak problems Loktak lake, the largest and only fresh water lake in the entire NE India is under serious threat due to anthropogenic

activities. Heavy deforestation in the catchment area has been one of the main factors for the heavy siltation in the lake. The root cause of the problems can be traced to loss of vegetal cover in the catchment area and construction of Ethai barrage. In its long history, the Loktak Development Authority has spent a huge amount to desilt by dredging out the sediments. Reports said that in 2003 4.27 Lcum of phumdis have been removed. 0.85 Lcum of silt have been removed from the Khordak channel during the same period. In the recently finalised sectoral outlay, LDA gets Rs 37 M for 2004-5 with five objectives: control of soil erosion through afforestation, fuel wood and fodder plantation, regeneration of degraded forests, control and improve shifting cultivation, and engineering measures, development strategies to realize multiple functions such as hydropower, wildlife, fisheries, flooding and water quality. (The Imphal Free Press161004)

Himalaya glaciers melt unnoticed Experts have warned that the melting of glaciers in the Himalayas could spell catastrophic flooding for millions living in the region. In the long term, the glaciers could disappear altogether, causing several rivers to shrink and threatening the survival of those who depend on them. There are 3,300 glaciers in the Nepalese Himalayas and 2,300 contain glacial lakes. These lakes are quietly growing because of rising temperatures. A burst lake would cause flash floods, which could sweep away people, houses, roads and bridges in Nepal, Bhutan, Bangladesh and India. Such disasters have already happened more than a dozen times around Nepal in the last 70 years. A glacial lake burst in Khumbu, Nepal, in 1985, killing at least 20 people. It also silted up a hydropower station, destroyed a trekking trail and numerous bridges. No systematic on-the-ground research has taken place since the mid-1990s. Between 1970 and 1989, Japanese researchers discovered most of the glaciers in the Khumbu region had retreated 30-60m. In Nepal's Dhaulagiri region, field studies until 1994 showed the same trend. Nepal's most studied glacier in Tsorong Himal underwent a 10 m retreat during 1978-1989. Nearly 70% of discharge to the Ganges in dry season is from Nepalese rivers, which means that if Himalayan glaciers dry up so will the Ganges downstream in India. "In some rivers, the flow may go down by 90%," said Syed Iqbal Hosnain of the University of Calicut, India. (BBC News 101104)

WATER SECTOR

Plan to put water on Concurrent List The Water Resources Ministry, in consultation with the Planning Commission, has proposed that a new provision on planning and development of inter-state river basins, including the setting up of river basin organisation, water storage and irrigation systems, flood management and drainage, be included under the economic and social planning on the Concurrent List. The World Bank has been advocating this for some

time. As of now, water is a State subject. It is also suggested that the provision in Schedule 7 of the State List be amended to include drinking water, water storage and irrigation systems, flood management and drainage of intra-State rivers. For this, the Govt will have to amend the Constitution. (THE HINDU 070904)

MWR meet on CAD The conference of the chief secretaries /principal secretaries & Command Area Authorities of states & UTs on Aug 2-3 has recommended:

- The States, which have not yet enacted relevant act for Participatory Irrigation Management may do so expeditiously. PIM should be encouraged in areas covered by surface water and ground water irrigation.
- Water charges need to be rationalized & the WUAs empowered to collect the same & maintain the system.
- Timely publication and dissemination of data.
- MWR will provide necessary inputs for finalization of State Water Policy or Vision document or operational action plans as and when desired by the States.
- As the River linking projects have financial, social, environmental and political ramifications, it is necessary to have comprehensive assessment of all issues.
- The budget outlay should be increased for irrigation projects and in particular for the on-going irrigation projects by the States for their early completion. The State Govts should give first priority for completion of all the on-going pre-Fifth and Fifth Plan irrigation projects and projects in advanced stage of completion within Tenth Plan by providing adequate budget allocation.
- The Central Loan Assistance under Accelerated Irrigation Benefits Programme should be made available to project implementing authorities immediately as the parking and diversions of funds were affecting the projects.
- Areas prone to floods under different conditions are to be identified and short/ long-term measures are to be planned. States may take up flood plain zoning and flood hazard maps for all areas prone to floods.
- Dam Safety aspects are to be given due consideration and concerned agencies should take all pre-cautionary measures in this regard including Emergency Action Plan /Disaster Management Plan. State/Union Territory Govt may constitute Dam Safety Organizations and also examine the Dam Safety legislation at the earliest and take appropriate actions. Appropriate measures are required to be taken up on priority with a view to reduce the rate of siltation.
- Up to March '04, CAD works were completed in 16.22 M Ha, for which the Central assistance of Rs 27.42 B was provided.
- Four projects namely, Peechi, Badua, Dharoi and Sabarmati, in different locations have been selected in consultation with Ministry of Agriculture and ICAR. These four projects, not having inter-State problems, would be studied to improve irrigation efficiencies.

- 9 States that have so far not constituted Model State Level Committees on Ground Water Resource have assured to do so immediately.
- States that have not enacted legislation on groundwater should take steps for enacting such legislation at the earliest. However, in NE States, need for such legislation to be reviewed keeping in view trend of ground water levels.
- Proposed Centrally Sponsored Scheme of Artificial Recharge of Ground Water and Rain Water Harvesting Artificial recharge is very important and States proposed to increase in the amount of Rs. 1.75 B. Funding pattern of the scheme especially, in respect of NE States, which enjoy special category status may be changed from 75:25 (Centre:State) to 90:10.
- Finalizing scheme for revival & restoration of water bodies need to be done on priority in time bound way.
- Importance of making Rain Water Harvesting Mandatory in Urban Areas discussed and States requested to take steps in this regard.
- States should consider pricing policy for major water uses. State depts in various ground water sectors have to take necessary steps for quality control and regulatory measures for safe water. (PIB PR 060804)

WB hydrology project The World Bank announced a \$105 M hydrology-II project, aimed at creating a database covering all aspects of the hydrology cycle, including surface water and groundwater. The WB claims that this will promote and extend the sustained and effective use of the hydrological information system, established under the hydrology-I project, by all potential users, both public and private. [The reality on ground is very different as no hydrology information is made available outside govt and no system is in place to make the hydrology data public.] The database developed under the HP-I provided hydrological records in the nine states and six central agencies it covered. The second phase will expand the coverage to four more states (Goa, Himachal Pradesh, Pondichery and Punjab) and two central agencies (the Central Pollution Control Board and the Bhakra-Beas Management Board). A longer-term aim of the project is to assist the govts at central and state levels with regard to issues of intra-sectoral demands, and overall resource planning and management. The project will be implemented over six years by the Ministry of Water Resources. The existing National Level Steering Committee will continue as the apex body responsible.

CM using the Hydrology Project Vehicles! According to the report of the CAG, some 11 vehicles costing Rs 3.8 M, bought under the Hydrology Project-I, were allotted to those that were not associated with the project. These included the Chief Minister, the deputy Chief Minister, the Ministry for state, Governor House among others. This speaks volumes for the effectiveness of the Hydrology Project. (THE ECONOMIC TIMES 260804, www.worldbank.org.in, CAG-MP-Civil report for the year ending in 0302)

WB loan for MP The World Bank has approved \$396 M loan for Madhya Pradesh water sector restructuring, claiming it to be 'for sustainable growth and poverty reduction'. It is claimed that the Project would benefit over 2 M people living in selected river basins of Chambal, Sindh, Betwa, Ken and Tons through improved productivity of water, leading to increased irrigation and employment opportunities. This will lead to institutional reforms supposedly towards sustainable and optimal WRM and improved reliable irrigation. The loan will finance: (i) the establishment and operationalization of planning, allocation and regulatory institutions and instruments at the state and basin-levels; (ii) institutional reforms and measures related to delivering irrigation services at reasonable cost by financially viable entities; (iii) rehabilitation and modernization of selected existing irrigation and drainage assets in the five river basins covering 0.62 M ha of command area distributed in about 654 large, medium and small schemes; (iv) provision of supplies and extension services for agricultural intensification and diversification, and development of fisheries associated with the irrigation and drainage assets being modernized; and (v) the coordination of project implementation activities. The agreement for the Project approved in Sept was signed at the Ministry of Finance on Nov 30. (BUSINESS LINE 090904, www.worldbank.org)

Phase 2 WB loan for Tamil Nadu The World Bank has approved a Rs 29 B loan for the phase 2 of the Tamil Nadu water Resources Consolidation Project. The WRCP-I started in 1995 was aimed at improving the efficiency and storage capacity of the water resources. (THE INDIAN EXPRESS 240904)

South Asia's Looming Water Crisis According to UN estimates, about 2.3 B people in about 50 nations will be saddled with severe water shortages by 2020 because of global warming. The growing water crisis will only be aggravated by the melting of mountain glaciers across the world, which experts say can account for as much as 95% of water in river networks. Global warming would cause over 40 Himalayan glacial lakes to burst in the next few years, causing floods and killing thousands. With world temperatures expected to increase by 1.4-5.8 degrees Celsius by 2100 and sea levels to rise 9 - 88 cm, small islands such as the Maldives and many in the Caribbean and South Pacific are in danger of drowning. (Reuters News Services 301104)

WATER PRIVATISATION

Uruguay Referendum: NO to Privatisation Uruguayan voters not only made a dramatic shift in the presidential and parliamentary elections, but also approved a constitutional reform that defines water as a public good and guarantees civil society participation at every level of management of the country's water resources. Over 60% came out in favour of introducing a constitutional clause stating that "water is a natural resource essential

to life" and that access to piped water and sanitation services are "fundamental human rights". The referendum promoted by the National Commission for the Defence of Water and Life, made up of the trade union representing the employees of the state-owned water and sewerage company Obras Sanitarias del Estado and several civil society organisations, needed the support of at least 50 % voters to pass. The referendum, which is unique in the world, "Sets a key precedent for the protection of water worldwide, by enshrining these principles into the national constitution of one country by means of direct democracy", says a letter by the Friends of the Earth International that was signed by 127 organisations from 36 different countries in support of the Commission. The groups underline that the constitutional amendment "Secures the protection and sovereignty of this natural resource against attacks from transnational corps transcending the national limits of Uruguay and setting a strong political precedent for the whole region." (Americas.org)

Tanzania water privatisation According to a report from the ActionAid, water privatisation in the Tanzanian city of Dar es Salaam has neglected the needs of poor people, despite the World Bank's assurances that access to water for poor residents would be improved. ActionAid says that in Tanzania the Bank used the promise of a \$143 M loan to push through an inappropriate project in the face of public opposition. Water bills have risen sharply - by 40% according to one estimate - since the Dar es Salaam Water and Sanitation Authority was leased to a consortium called City Water in 2003. The WB expects prices to double eventually. The poor families are turning to unsafe water supplies rather than pay the increased bills. City Water, which is part-owned by the Biwater, disconnects whole areas in an attempt to get people to pay up. In poor districts there is anger at the high prices and poor service. "Donors have been pushing through a project in which 98% of the investment will go to the areas where the richest 20% of the population live," said director of ActionAid Tanzania. (www.actionaid.org.uk)

DJB The Delhi Govt has moved a step forward towards water privatisation and appointed some foreign consultants to implement its 24x7 supply scheme. The Delhi Jal Board has invited global tenders for distributing water in two of the 21 zones. The private firm – officials said there are only 3-4 companies that specialize in water distribution – will get the contract for five years. Officials said the DJB would seek the World Bank's loan for the project. The 24x7 scheme does not mean that water will be supplied round the clock. "We will ensure that on all seven days water is supplied at a given time at a good pressure". People living in these two zones will have to pay more for the service.

➤ The Asian Development Bank has indicated in its report that the Delhi Jal Board is heading towards total privatisation. The bank report, "Waters in Asian Cities

Utilities performance and Civil Society Views,” brought out in Jan ‘04, reveals, “Private sector participation has been limited to the operation of a few newly built sewage treatment plant, one small water treatment facility (six MGD capacity) and tube wells. Efforts to place large existing treatment facility under PSP have not been fruitful.” “The initial introduction of PSP took some effort but PSP is now an integral part of the new capital works especially treatment facility and bulk metering. The main obstacles to the PSP are the absence of independent regulation, poor economic viability, lack of long term policy support and inertia and apprehension by DJB employees about PSP initiatives”. The report clearly reveals that PSP is an integral part of new systems like the Sonia Vihar Water Treatment plant by the France based company Degremont.

➤ The leader of opposition in Delhi Assembly criticised the steep increase in water tariff and charged that the govt in Delhi seemed to be under pressure from the World Bank lobby and was in league with some multinational companies to privatise the DJB. A regulatory commission was needed to monitor the activities in the private sector, and when the Govt was itself managing the supply, there was no need for a commission. According to CM in Assembly, water requirement in Delhi was 860 MGD while it was getting 600 MGD of raw water where 30% goes waste. 50% of its population does not get potable water at all and had to depend on groundwater. (THE HINDUSTAN TIMES 240904, THE ASIAN AGE 031004, THE HINDU 111104)

Push to privatise water According to the World Commission on Water for the 21st century, poor people in developing countries pay an average of 12 times more per liter of water than fellow citizens connected to municipal systems. In addition, the poor pay exorbitant sums to water vendors in some cities: 83 times more in Karachi and 63 times more in Jakarta. Given that so many developing countries are opting for privatization of several services, water is very much on the agenda. Till 2003, water companies still ran only about 5% of the water utilities around the world, served 300 M people, as against just 51 M in 1990. The French company Vivendi earned over \$12 B in water related revenue in 2002. Vivendi has over 110 M customers in over 100 countries and Suez controls water services in 130 countries with 115 M customers, Britain’s Thames Water, which has been acquired by a German conglomerate, has 70 M customers and earned \$2 B in 2002. The WB has often forced countries privatise their water operations as a pre condition for loans for water supply. Under the WTO, countries are being coaxed to open water services to private participation. In 2003, the European Union asked 72 countries to permit such entry under the General Agreement on Trade in Services. (KASHMIR TIMES 09004)

Another water privatisation in MP The Govt. of Madhya Pradesh has invited bids for design, construction and operation on BOT basis a privatized

water supply scheme for Dewas Industrial Estate. This will be the second privatized industrial water supply scheme after Sheonath. (Sheonath is in Chhattisgarh, but was initiated when it was a part of MP.) The scheme is estimated to cost 800 M, is meant for 23 MLD supply, industries have assured off take of 9 MLD and will draw water from Narmada at Nemawar. (Manthan 140904)

A barrage with private participation A barrage across the Kamalavathi River in Sedam taluk of Gulbarga dist in Karnataka has come with private participation. This is the first barrage built across a river in the State through private participation. Constructed at a cost of Rs 15 M by the nearby Vasavadatta Cements, the water stored in barrage would be utilised by the factory in the production of cement and as drinking water for Sedam town. A MoU was signed between the State Govt and the Vasavadatta Cement and according to MoU, the barrage was to be constructed by the Vasavadatta Cements, and the water stored in the barrage, which is around four feet deep, and around 90 m long, has backwater up to two km in the river. A jack well being constructed near the barrage would help in the pumping of water to Sedam town. The project would be completed by 2005. (DECCAN HERALD 141104)

Mumbai The BMC is set to introduce privatisation in water supply. The project promises to deliver water round-the-clock at existing rates on average 200 litres per capita per day, and if successful, will be implemented in other parts of the country. The K-east ward, one of the largest and the highest revenue earner for the BMC is chosen for trial. The WB has appointed consultant to finalise the project. The WB will provide a grant of Rs 30 M to carry out a study on the viability of the scheme. The BMC’s standing committee is yet to approve the study. The project has been approved by the Centre, which as part of the UN’s Millennium Development Goals, wants to ensure 24-hour water supply in all metro cities by 2015. WB officials admitted that commercial viability was the sole criteria for the selection of K-east ward. It largely consists of industrial and corporate areas. The revenue earned for 2003-4 is Rs 520 M whereas the cost of providing water is Rs 55 M. Thus there is ample scope for a profitable operation. Since the grant has been offered to the Centre, “In the final analysis, the BMC will have no say”. The project will be monitored for two years and, if successful, will be replicated in other areas. Minimising losses through leakage and pilferage and improving distribution are the main aims. On an average 20% of the total water supply (2950 M litres) to the city is lost on these counts. (THE TIMES OF INDIA 201104, 301104)

JBIC fund for Philippines Japan Bank for International Cooperation will be setting up 10 B yen (\$90 M) public-private fund with USAID in 2006 for maintenance of water supply and sewerage in the Philippines. This will be the first fund in Asia. Using finances and credit guarantees from Japanese and American financial

institutions as leverage, inflow of private funds to water supply and sewerage business will be encouraged. The 30% of the fund will be loans from JBIC and 70% will be raised from private financial institutions and investors. USAID will be giving guarantees to half of the public funds. Both institutions will be financing local authorities and water services through the new fund for the maintenance business. Before the establishment of the new fund, the existing JBIC financing limits and USAID credit guarantee limits will be combined to start a 2 B yen finance partnership system. (Nikkei Shinbun 121004)

INTER STATE DISPUTES

SC on Punjab's SYL plea The Supreme Court has upheld its June 04 order directing the Centre to construct the Punjab portion of the Sutlej Yamuna Link Canal and dismissed a petition by the Punjab Govt seeking its review. A Bench comprising Justice Ruma Pal and Justice P V Reddy dismissed the review petition and said that it found no merit in them.

➤ A five Judge Constitution Bench of the SC headed by the Chief Justice R C Lohati issued notices to the Centre and Punjab, Haryana, Rajasthan, Delhi, Himachal Pradesh and J & K on the presidential reference regarding the controversial law enacted by the Punjab Govt annulling its agreements with neighbouring states. A bench of Justice N Santosh Hegde, Justice Y K Sabharwal, Justice Ruma Pal and Justice S N Variava declined the Attorney general's request for issuance of a public notice on the reference besides serving notice to all the states.

The Punjab Govt has justified in the SC its recent law and asserted that its obligation in implementing the SYL canal stood discharged under this law. Punjab in an affidavit said that it had taken note of the fact that both Haryana and Rajasthan did not have any legal right on the water of Ravi and Beas as these rivers "do not flow through these States." "In these circumstances, the legislature has concluded that the agreements relating to the Ravi Beas waters have become onerous, unfair, unreasonable and contrary to the interest of the inhabitants" the affidavit said. "The Act of 2004 does not disturb the existing actual utilisation by Haryana of 1.62 MAF and Rajasthan, 7.2 MAF and for the drinking water supplies of 0.2 MAF to the National Capital Territory of Delhi. The Punjab Govt was competent to enact the legislation since the Parliament had not made any law under the union list of the Constitution insofar as the Ravi and Beas waters were concerned."

➤ The Supreme Court has directed Rajasthan and J & K to file their replies within a month, while ordering listing of SYL issue for further hearing. The bench also allowed Punjab to file within four weeks additional affidavit in reply to Haryana's 13-volume response to the presidential reference, seeking the opinion of the SC on the validity of "the Punjab Termination of Agreement Act 2004."

Rajasthan appeal to PM Rajasthan CM has urged PM to make the Punjab Govt release Ravi-Beas waters as per the inter-state agreement to mitigate the hardships of farmers in Sri Ganganagar district. The CM has underlined the problems borne out of fluctuations in the release of water, saying that farmers are deprived of the assured supply in time. The CM has invited attention of the PM to the Punjab Reorganisation Act, 1966, under which the control of the Ropar, Harike and Ferozepore headworks was to transfer to the BBMB. The CM said that Rajasthan should get water till the water level in the Pong dam reaches 1275 ft as had happened in 1985. This year the water level is 1295 ft. (BUSINESS STANDARD 250804, THE HINDU 030804, 150904, THE TRIBUNE 210904, 171104, RAJASTHAN PATRIKA 161104)

MP-Rajasthan dispute on Chambal The dispute is lingering from three decades. Madhya Pradesh started constructing check dams. In 1978, the Rajasthan Irrigation Dept had opposed the MP Govt for obstructing water in catchment area of Gandhi Sagar. After prolonged effort, the MP Govt admitted that it has constructed 152 dams and 0.239 MAF water is being stopped. However, in answer to a question in Parliament, the Union Water Resources Ministry said on Dec 20, '04 that about 1 MAF water is being utilised through such structures. MP and Rajasthan has equal share in Chambal waters. Union Minister of state for water resources said in the Parliament that it has been decided that share of MP from the Parbati aqua duct will be reduced to the extent of 50% of the unauthorised use of water by MP in the Gandhi Sagar catchment. (DANIK BHASKAR 150904, 301204)

Cauvery dispute The Karnataka Govt has decided to file an affidavit before the SC to present its stand on a petition challenging the continuation of certain members of the Cauvery Water Dispute Tribunal. The special leave petition was filed in the apex court by the Gandhi Sahitya Sangha against the visit of Tribunal members to riparian states. The petition stated that the tribunal had almost broken down and that the "unseeing manner" in which two judges had treated the Chairman, deprived the Tribunal "of all credibility."

➤ The DMK led DPA in TN urged the Centre not to reconstitute the CWDT. It said, "the Central Govt should take steps to dispel the confusion on the Cauvery issue and ensure that a final award of the Tribunal, which would protect the interests of the Cauvery delta farmers, is issued at the earliest."

➤ The TN has alleged that Karnataka, being an upper riparian state, has been 'successfully delaying the constitution of the Tribunal. It also said the Karnataka was impounding all the waters in utter disregard to the interim order of June 25, 1991.

➤ The SC reserved its order on a petition challenging the decision of two members of the CWDT to visit the river basin recently. However, the SC lifted its earlier interim order restraining the two members from visiting the basin areas.

A PIL was filed in the Madras High Court for a direction to Karnataka to release Cauvery water to Tamil Nadu as per the interim order of the tribunal. According to a petitioner, water was urgently needed for samba cultivation in the delta region. The petitioner pointed that the suit filed by Tamil Nadu in 2002 to ensure compliance of tribunal's order by Karnataka was still pending before the SC.

➤ On Oct 26 the SC has rejected the PIL by Gandhi Sahitya Sangha to reconstitute the Cauvery Water Dispute Tribunal and criticised Karnataka for backing the petitioner. A Bench of Justice Ruma Pal and Arun Kumar said the petitioner had no right to file the petition challenging the CWDT orders regarding inspection of the Cauvery river basin by two of its members. The Bench recalled its judgement in 1993, which said that the tribunal was set up at the apex court's direction and that its job was to monitor and adjudicate the dispute between the riparian states. The SC had also said that Article 131 of the Constitution relating to water disputes between two or more states bars any individual or society from intervening in its proceedings. (THE NEW INDIAN EXPRESS 080904, 090904, DECCAN HERALD 110904, 131004, THE TIMES OF INDIA 271004)

PAP pact violation The Kerala Govt will invoke the arbitration clause from the inter-state Parambikulam Aliyar Project agreement following violations by Tamil Nadu. Tamil Nadu has not kept the stipulated water level of 2663 tmcft in Feb and Sept in Sholayar dam for producing power as per the PAP agreement. It has not handed over 98 buildings constructed for the project. Tamil Nadu has constructed a 400 MW Kadampara dam and a 2.5 MW mini HEP at Thirumurthy violating the agreement. They have also lined the contour canal depriving Kerala of over 4 TMC of water every year. It is pumping away water below the Manacadavu weir where water is measured for Kerala and diverting floodwater that would have come to the Bharatpuzha. Tamil Nadu has also constructed two saddle spillways at Sholayar as against one allowed under the agreement. The Kerala Govt would take strong measures to get 7.25 TMC water due to the Chitturpuzha scheme. The Tamil Nadu Govt was not giving the full quantity for the last three years. In the current year, it got only 1.527 TMC.

➤ **Tamil Nadu promises steps** The TN Minister for Water Resources said that TN had admitted to diverting waters allocated for Kerala under the PAP agreement and had promised to rectify the situation. He said that TN was diverting water between the Manakkadavu weir and Moolathara after the quantity of water for Kerala was measured at Manakkadavu. Though Kerala should get 7.25 TMC of water every year through the weir, this was not being released in some years. The Minister said the TN had agreed to provide 2.5 TMC of water from Anamalyar on completion of the Edamalyar project or in four years, whichever is earlier. TN is eligible for the water on completion of the Edamayalar project as per the original agreement. (THE HINDU 201004, 091104)

UP - MP on Ken dams The District Collector of Chhatarpur in Madhya Pradesh has sent a proposal to Uttar Pradesh Govt to hand over control of some dams. The proposal says the UP should hand over the control of the projects to MP like in the case of Maharashtra handing over the Pench project to MP. The Collector said that benefit of Gangau, Rangnawa, Bariarpur, Pahari Dam, Lachura and Urmil project on Ken, Dhasan, and Urmil Rivers should be available to MP on the basis of catchment area and submergence area. UP is taking benefit in most cases. (DANIK BHASKAR 271004)

J&K seeks compensation for Indus Treaty The J&K CM has sought compensation for losses due to the Indo-Pak Indus Water Treaty of 1960. He said the State should have rights over its rivers. He said the rivers of the State irrigate almost entire Pakistan but J&K cannot optimally utilize its waters for harnessing the power potential. He said each time the state takes up a HEP Pakistan raises an objection citing the treaty. Pakistan has raised objections on the Baglihar HEP. He said as part of the compensation, he had demanded handing over of the Salal HEP to the state saying the NHPC had already earned more than what it had invested in the project. The Salal HEP was commissioned by NHPC 17 years ago. (Daily Excelsior 081104, 301104)

Pakistan to approach WB on Baglihar Pakistan has decided to approach the World Bank for bilateral solution of Baglihar dam over Chenab in J & K. Discussions between India and Pakistan have been going on for several years. Indian experts are convinced that the Baglihar project is entirely within the framework of the Indus water treaty. According to a Pakistan Foreign Affairs spokesman, "the Pakistan Economic Advisor has sent a letter to the WB, asking the Bank to use its influence on India so that the issue could be resolved through bilateral talks. We preferred to resolve the matter bilaterally, but there has been no progress," he said. Wular Barrage and Kishanganga HEP have also remained unresolved between India and Pakistan. The 'final' meeting in Jan 2005 seems to have ended in a stalemate. (THE HINDU 281104, THE TRIBUNE 301104)

India, Bangladesh on Teesta India-Bangladesh failed to reach a consensus on Teesta waters in the meeting held in Dhaka on 14-15 Sept. Water experts continued deliberations on the basis of the report by a technical expert committee. India proposed a five-year scientific study on the flow of the Teesta, Bangladesh did not oppose it, but wanted an interim arrangement for sharing the waters.

➤ In Nov '04 a two-day meeting of the joint technical group ended in New Delhi without the two sides being able to thrash out their differences on reaching an interim sharing solution. The two sides agreed to meet in Dhaka in January. Teesta sharing issue is on the negotiating table for over two decades. (THE TRIBUNE 160904, NewAge-Bangladesh 111104)

Protests in Bangladesh against Tipaimukh Amidst mounting protests both at home and in lower-riparian Bangladesh, India is going ahead with the 1500 MW HEP on the river Barak at Tipaimukh on the borders of three NE states of Assam, Manipur and Mizoram. Officials and experts in Dhaka fear the Indian move to dam the Barak, which feeds both the Surma and Kushiara rivers in Sylhet, will have lasting adverse effects on livelihoods, ecology and environment in a vast region of Bangladesh. The people living in the vicinity of the Rs 50 B project in Manipur fear submersion of vast areas. One of the largest river systems in Bangladesh -- the Meghna with its distributaries -- is dependent on the Surma and Kushiara. The people in greater Sylhet under the banner of Shahjalal Samaj Kalyan Parishad plan to hold a rally, protesting the project. The Naga Women Union of Manipur protested Manipur Govt's signing of agreement with the North-Eastern Electrical Power Corp for the project. It feared that due to the 162.8 m high dam thousands would be rendered landless and homeless. The Naga People's Movement for Human Rights also condemned the govt decision. With a storage capacity of 15.5 bcm, the dam will be larger than the controversial Narmada Dam having a storage capacity of 12.2 bcm. Bangladesh has been asking India since 1972-3 to furnish it with the latter's detailed plan on Tipaimukh. (Daily Star-Bangladesh 271104)

India agrees to open Laxmanpur bund outlets India has dismissed Nepal's proposal for dismantling the Laxmanpur bund in the third meeting of Nepal-India High Level Technical Committee on inundation problems, and proposed to open the bund's outlet as an alternative for solving the problem of inundation in Banke, Nepal and Shrivasti, India. However, the meeting could not agree on some of the survey maps presented by the two sides on Rasiyawal-Khurdalautan bund that has been causing inundation problems in Rupandehi, Nepal and Siddharthanagar, India. A six-member bilateral technical team was formed to recommend technical parameters of the opening at Laxmanpur bund. Initially, the Indian side had pushed a proposal to build a toe drain along the Laxmanpur bund. The meeting also agreed to prioritise construction of embankments on both sides of the Rapti River in Banke for protection of Nepalese territory. Regarding the Rasiyawal-Khurdalautan bund, the meeting decided to "reconciliate and revalidate" maps presented by the two sides with level book data. A bilateral team has been set up for the purpose. (KATHMANDU POST 300904)

India-Nepal task force on floods India and Nepal have agreed to speed up efforts on flood control and management and have agreed to set up a task force. This decision was taken in the two-day meeting of the India-Nepal Joint Committee on Water Resources. The JCWR also adopted a master plan on flood forecasting and warning. (THE HINDUSTAN TIMES 091004)

IRRIGATION

Andhra Pradesh AP has announced ambitious plans to complete 30 irrigation projects. Some of the projects that the govt is interested to complete early are yet to receive the Centre's clearance. 13 out of 26 projects in the state listed for completion in 3-5 years have no clearance from Central Water Commission. These are Veligonda, Handri-Neeva, Galeru-Nagari, Kalwakurthy, Guru Raghvendra, Penn Ahobilam, Telgu Ganga, Tadipudi, Alisagar, Gutpa, A Madhva Reddy Canal, Pushkaram and Nettempadu. Most of them are based on Krishna. Among the mega projects planned on the Godavari, four – Polavaram, Ichampalli, Yellampalli and Dummagudem – face the same fate. Only six projects have completed mandatory public hearing process, which are Vamsadhara, Bhima, Thotapalli, Sriramsagar II, Sriramsagar Flood Flow Canal and Somasila. Officials claim that Gundlakamma, Chtravathi, Alaganur Balancing Reservoir and Ramathirtha do not require any Central clearance, as they are local. The CWC approved the controversial Pulichintala project subject to environmental and forest clearance. Ichampalli could not progress due to the likely submergence in Chhattisgarh at the 112 m level.

WB interested to fund Polavaram AP held talks with the WB about funding the ongoing and new irrigation projects. The sate irrigation ministry said that the WB representatives have shown interest on the proposed Polavaram project and also on the projects involving ILR. [It is amazing that the World Bank is interested in funding these projects that have yet to be declared feasible and that have yet to obtain environmental and other clearances and that are facing such massive protests.] These projects were estimated to cost Rs 460 B. CM inaugurated the Rs 13.2 B right bank canal of the Polavaram project on Nov 8 '04. The 174-km canal, part of the Rs 82.61 B Polavaram project, which is renamed 'Indrasagar,' would transfer 80 tmcft in Godavari to Krishna basin at the Prakasam Barrage.

Major ongoing projects in AP

SN	Name	Cost (B)
1	Vamsdhara st-II, Ph-I	1.24
2	Tadipalli Lift irrigation Scheme	2.374
3	Pushkaram Lift Irrigation Scheme	2.973
4	Somasilia Project	8.33
5	Telugu Ganga Project	31.0
6	Godavari Lift Irrigation Scheme	9.3
7	Alisagar Lift Irrigation Scheme	1.1
8	Gupta Lift Irrigation Scheme	1.1
	Total	57.417

HC quashes tenders The High Court has quashed major irrigation tenders for 27 projects, dubbing the procedure adopted by the state govt in the selection of contractors as "arbitrary, irrational, discriminatory and suffering from malice of law". The CM announced a plan to irrigate additional 2.6 M Ha in 5 years.

New Projects announced in AP

SN	Name	Cost (B)
1	Galeru-Nagari	3.4
2	Handri-Niva	13.05
3	Yellampally	9.0
4	Dummugudem	7.07
5	Velugonda Stage-I	7.65
6	Polavaram	13.2
	Total	53.37

Pulichintala opposed The Pulichintala irrigation project across the river Krishna is under controversy. It envisages construction of a balancing reservoir across the Krishna in Nalgonda district in Telangana region. Aimed at providing irrigation for 0.5 M Ha in Krishna, Guntur and Prakasham dist, the project has fuelled regional passions with Telangana Rashtra Samithi warning of an agitation if the project site is not shifted further downstream. The TRS is opposing on the ground that it would lead to submergence of several villages and valuable limestone deposit in Nalgonda dist. A PIL filed by K Purushottam Reddy, in the HC, argues that the project violates the Central Environmental Act as no public hearing was conducted and no clearance was obtained from the MEF. The project would lead to submergence of 12000 Ha covering 12 villages in Guntur and five in Nalgonda dist. He claimed that if the demand of TRS is accepted and the site is shifted, then 24000 Ha would be submerged.

➤ **HC stay** A Division Bench of the AP High Court, comprising the Chief Justice Devinder Gupta and C V Ramulu on Nov 17 declared that the action of the govt in implementation of the Pulichintala project without obtaining environmental clearances was illegal. The Bench directed the State Govt "not to undertake any construction work, till environmental clearance is obtained." As an alternative, the petitioners wanted the project to be taken up at a site after the Maneru tributary joined the Krishna.

➤ **Telangana project gets burial** The proposal for a tail pond below the Nagarjunsagar near Halia in Nalgonda dist was mooted years ago, but successive govts had shown little interest in it. The Rs 4.5 B project was mooted again by APGenCo in 2003, but the previous Govt did not clear it. The construction of the tail pond has been one of the main demands of Telangana agitators, since it would sustain adequate water levels in Nagarjunsagar and help in meeting irrigation requirements of the Nalgonda dist. The project envisages storing about five tmcft in the tail pond, from where 1-2 tmcft would be pumped back into Nagarjunsagar reservoir through reversible pumps in the HEP during the peak hours. While the proposal has been gathering dust, the State Govt is going ahead with Rs 5.6 B Pulichintala project further down Nagarjunsagar, aimed at storing 45 tmcft of water to stabilise the ayacut of Krishna delta. (FINANCIAL EXPRESS 101004, 151104, DECCAN HERALD 281004, THE HINDU 291004, 181104, BUSINESS LINE 171104, THE TRIBUNE 211104)

Irrigation Efficiency in AP A group of farmers in Godavari delta in Andhra Pradesh were able to bring down the use of water for paddy by about 30% with the help of the Systemic Rice Intensification Programme. Presently about 4000 litre water is required to produce one kg of paddy, which will come down to 1500 litres under the new method. The UN consultant on water management said that irrigation efficiency of paddy should be improved from the present level of 30% to 55% and this could lead to doubling of the irrigation area in the State using the same quantity of water. (DECCAN CHRONICLE 201104)

FAO pact with AP University The Food & Agriculture Organisation of UN and Acharya NG Ranga Agriculture University have signed an agreement for the Rs 218.3 M AP Water Management Project for five years up to 2008 under the existing MoU between the Netherlands Govt and FAO. The agreement envisages improvement of water management in agriculture at Bapatala in the Krishna Delta, Jagital under Sriramsagar Project, Garikapadu under the Nagarjunsagar Left Canal and some areas under tank irrigation in Chittoor district. (BUSINESS LINE 170804)

Karnataka The Karnataka Govt has sought a loan of Rs 5.482 B from the Centre to complete eight irrigation projects that have been pending for many years. Work on 40 major and medium projects cleared by the Centre have been held up. Irrigation Dept said that Rs 1.468 B had been sought for the Upper Krishna Project-II, Stage-I, 2.657 B for UKP stage-II, 120 M for Malprabha, 128.4 M for Hirehalla, 620.9 M for Ghatprabha, 200 M for Gandorinala, 140 M for Varahi Phase-I, and 147 M for Lower Mullamari. The Dept had received Rs 2.665 B loan in 2003-4 under the AIBP. The govt added its share of Rs 1.741 B and totally Rs 4.406 B was spent on seven projects last year. Due to delay in the execution, the spill over cost on these projects was estimated at Rs 100.18 B at the end of the 10th Plan.

➤ The Centre has reduced the allocation to Karnataka under the AIBP. The Union MoWR has allocated Rs 2.5 B, while the state had requested Rs 5.5 B. The Ministry said that this is largely because of the poor performance in 2003-4. The ministry sanctioned Rs 4.5 B in 2003-4 but released Rs 2.665 B as the state had failed to carry out the works. Karnataka has received the highest amounts under AIBP, second only to Gujarat. The amounts are: in 1996-7 Rs 612.5 M, in 1997-8 905 M, in 1998-9 945 M, in 1999-00 1.571 B, in 2000-1 1.71 B, in 2001-2 4.925 B and in 2002-3 Rs 6.21 B. So far the Centre has released Rs 19.53 B to Karnataka. Karnataka has so far spent this money on 10 projects –Upper Krishna Project-I (Phase-III) and II, Malprabha, Hirehalla, Ghatprabha, Karanja, Gandrinala, Maskinala, Varahi lift irrigation scheme-I and Lower Mullamari. None of the 10 projects have been completed. (DECCAN HERALD 151004, THE HINDU 071104)

CAG:**Cost and time overrun in ISP in MP**

Indira Sagar Project approved in Nov 1990 with its updated cost of Rs 21.677 B (1988 price level) envisaged an annual irrigation of 0.16 M Ha and installed capacity of 1000 MW. The project lagged far behind schedule due to non-release of funds; lack of planning and co-ordination, delay in acquisition of land, rehabilitation & resettlement of project affected families; and finalization of design and fixing of agencies. After incurring an expenditure of Rs 11.1 B, dam and powerhouse (Unit-I & III) were transferred (Sept 2000) to Narmada Hydroelectric Development Corp, a joint venture of NHPC and Govt of Madhya Pradesh.

➤ The budget provision for the project from 1997-98 to 2001-02 was Rs 8.064 B while the fund allotted was 7.547 B and the project authority could spend much less at Rs 6.938 B. This expenditure lagged behind due to slow progress of R&R work.

➤ The appropriation accounts indicate that the funds of Rs 650 M were unauthorisedly diverted to establishment from works. The govt of India sanctioned (1996-97) loan assistance under AIBP was Rs 3.2 B while actual amount received was Rs 269 B. Shortfall was due to failure of state govt to provide matching contribution as per AIBP norms.

➤ As per MoU, the Govt /NVDA issued instructions (Aug 2000) to transfer entire assets, equipment and machinery to NHDC Ltd by Aug 31, 2000, to avoid further expenditure on their maintenance. It was seen that an expenditure of Rs 360.6 M was incurred on the maintenance of assets and charged to Unit-I and III during Sept 2000 to March 2002. Besides, an expenditure of Rs 212.2 M was also incurred on establishment under Unit-I and III up to March 2002. Expenditure of Rs 572.9 M on maintenance of transferred assets and establishment was unwarranted.

➤ The work of main dam and powerhouse was awarded to a contractor under two separate agreements at a cost of Rs 3.576 B in May 1992 for completion by 2001. The work was badly delayed. Only 10 026.44 Ha was acquired against 44 354 Ha and only 430 out of 29 967 PAFs were settled as of Aug 2000.

➤ The canal system comprises of "Punasa Facility" a 9.36 km long water conveyor system (Approach channel- 2.23 km, Tunnel- 3.68 km and Exit Channel- 2.45 km to carry water to the main canal), the Main canal (248.65 km) and the distribution system (175 km). Even after incurring Rs 2.834 B on canals, work in phase-I was behind schedule.

➤ No priority was given to the canal system to synchronise its construction with dam. As per the orders of the Govt (Aug '96), no work of survey was to be awarded on contract, and was to be done departmentally. Contrary to the orders, survey work was out sourced at the extra cost of Rs 9.1 M.

➤ The works were awarded on unrealistic estimates of quantities based on inadequate data. As a result wide

variation of strata and change of design occurred which led to extra cost of Rs 58.9 M. Due to delays attributable to Dept, raging between 1-5 years, Rs 7.09 M was paid as escalation.

➤ X-section of Tunnel was designed and approved by the Chief Engineer, ISP, Sanawad with 600 mm thick RCC lining. Accordingly, the excavation of tunnel with 9.25 m dia was done. But after the completion of excavation, the RCC lining of 600 mm was replaced by 350 mm plain cement concrete of same grade due to hard stable strata. This resulted in excess excavation and avoidable extra cost of Rs 12.6 M. Higher rates for replaced plain cement concrete lining has been sanctioned and resulted in extra cost of Rs 9.167 M.

➤ As per agreement, the work was to be completed by Nov 1997. But the contractor completed only 18.64% work costing Rs 116.2 M (excluding escalation of Rs 21.8 M) against tendered cost of Rs 623.2 M. Contractor was granted five extensions of 67 months. Although the scope of work was reduced from Rs 623.2 M to Rs 423.2 M, the contractor could execute work costing Rs 381.4 M (excluding escalation Rs 174.6 M) in 111 months (still ongoing) against the target period of 48 months. The delay also resulted in an extra payment of Rs 4.95 M on account of dewatering during the extended period up to Feb '03.

➤ Unwarranted excavation of exit channel and canal with catch water drain profile led to wasteful expenditure of Rs 8.894 M. Even after incurring the extra expenditure of Rs 3.44 M on line drilling and pre-splitting & perimeter blasting in the excavation of exit channel, the berms and slopes of the channel were damaged and the bed width increased by 0.5 - 5.3 m beyond the designed width of 13 m. This over excavation of rocks resulted in extra cost of Rs 3.17 M.

➤ The work of slope protection of Exit Channel (7160 m to 9360 m) was awarded (Dec 1998) with an item for removal of hard rock by chiselling and chipping etc up to a thickness not exceeding 150 mm before shot crete work. It was specially mentioned in the agreement that the silt and deposit would be removed by the contractor free of cost. According to audit entire chiselling and chipping exercise was doubtful. This resulted in an inadmissible payment of Rs 2.338 M.

➤ The escalation conditions was incorrectly adopted and resulted in excess payment of Rs 2.053 M to contractors.

➤ Rs 117 M had been advanced to Land Acquisition Officer Khargone, Barwaha and Bhikangaon for acquisition of 383.384 Ha private land. Out of this only Rs 2.662 M was paid to the landowners and remaining Rs 1.143 M was lying un-disbursed with the LAO.

➤ Expenditure of Rs 78.9 M on salary and allowances for the staff deployed without any work was unfruitful.

➤ Substandard work resulted in an avoidable recurring expenditure of Rs 0.118 M per annum.

➤ Payment of Rs 10.3 M was made to contractor for stacking, which was not done. (Report of CAG of Madhya Pradesh -Civil for the year ended 31 March 2002)

CAG:**Rajghat Canal Project**

Govt of Madhya Pradesh approved construction of the Rajghat Canal Project in March 1981 for Rs 461.5 M to develop a composite canal system to irrigate 0.12 M Ha in Bhind, Datia, Guna, Shivpuri and Tikamgarh districts. It was an MP-UP project on Betwa river. The project was taken up in 1979 for survey. The construction started in 1983 for completion in 7 years but could not be completed due to non-availability of adequate funds. Rs 889.9 M was spent till March 1997. It was rescheduled to be completed by March 2002, with loan of Rs 4.211 B (13.22 B Japanese Yen) from JBIC. The project remained incomplete even by March 2002 and was rescheduled for completion by March 2004. It remains incomplete to this day. The JBIC loan was admissible from April 1997 for pending canal works not awarded till then. A foreign consultant was engaged at a cost of Rs 75.2 M. It was seen that the overall expenditure of Rs 3.394 B was incurred during 1997-2002 but claims of only Rs 1.792 B were submitted to JBIC and only Rs 1.72 B was reimbursed and the balance of Rs 71.6 M was disallowed. The Govt of MP had to pay the avoidable price escalation of Rs 50.4 M for the delay. As against requirement of 4662.65 Ha land for canal network 3983.01 Ha were actually acquired and remaining land was yet to be acquired. Against 82.02% financial progress, physical achievement was only 50.54%. Stone pitching after lining of canals resulted in excess expenditure of Rs 2.948 M. Unwarranted black topping of canal service roads would result in unnecessary expenditure of Rs 100 M. Incorrect adoption of coo-efficient factor in 60 agreements resulted in excess expenditure of Rs 11.8 M. Adoption of weaker but costlier specification of precast cement concrete lining resulted in excess expenditure of Rs 21.4 M. Richer specification of service roads was adopted and resulted in excess expenditure of Rs 7.958 M. The finalisation of drawing was delayed, resulting in avoidable expenditure of Rs 2.242 M. The provision of Moorum below lining was unwarranted and has led to avoidable expenditure of Rs 3.28 M. The Govts orders have been violated in undue financial aid of Rs 9.8 M under seven agreements. (Report of CAG of Madhya Pradesh –Civil- for the year ended 0302)

Rajasthan Farmers die in police firing

4 farmers were killed and 6 injured in police firing in Gharsana tehsil of Sriganganagar district. Over 50 were injured in all. A judicial inquiry has been ordered. Trouble had been brewing over the farmers' demand for release of water into the Indira Canal for sowing in the Rawala and Gharsana areas. It all started on Oct 27 when a group of farmers were stopped at a bridge by the police and were allegedly beaten. Then police also entered a village and beat people there. Agitated at the police action, farmers returned with reinforcement and attacked the police. (THE TRIBUNE, DANIK BHASKAR 281004)

Rajasthan The Rajasthan Govt would spend Rs 7 B to irrigate 58 000 Ha additional area. This amount would be spent on Gang Canal modernisation (Rs 720 M), Narmada Canal project (Rs 1 B), Rajasthan Water Sector Restructuring Project (Rs 1.2 B), Bisalpur project (Rs 550 M) and Mahi project (Rs 500 M). Work for 91 irrigation projects under Rajasthan Water Sector Restructuring Project would be implemented to irrigate 0.65 M ha. The Govt has given administrative clearance of Rs 5.62 B for the project. (HARIBHUMI 010904)

N Koyal reservoir The Water Resources Minister of Bihar has said that the remaining work of N Koyal reservoir on Bihar-Jharkhand border would cost Rs 2.3 B to irrigate 0.111 m ha. Completion of barrage and reservoir in Jharkhand portion would cost Rs 1.08 B. In Bihar portion the project would cost 1.13 B. At present the project is irrigating 33 000 Ha. The project started in 1972 with an initial cost of Rs 300 M. Up to 2004 Rs 12.3 B has been spent. (RASHTRIYA SAHARA 251004)

Bihar to upgrade Kosi canal The Centre has approved Rs 2.5 B to renovate the Eastern Kosi Canal. In the phase-I the Centre will disburse Rs 1.3 B, of which Rs 550 M has already been sanctioned. (THE ECONOMIC TIMES 191004)

TB Canal losses The Tungbhadra High Level Canal is suffering from heavy seepage loss as 760 cusecs water seeps out. The canal runs across 300 km in Bellary district in Karnataka and Kurnool and Ananthpur districts in AP. It passes through 190 km in Bellary dist, and irrigates 0.07 M Ha. Of the 3100 cusecs released, 1800 cusecs is AP's share, 1100 cusecs Karnataka's and 200 cusecs is put down as water lost due to seepage. There are 60-70 places where the canal water seeps out. Kolor stream alone receives over 100 cusecs. 560 cusecs seeps out between distributaries 7-13. Roughly, a cusec can irrigate 64 Ha, which means that if the leakages are plugged, another 36000 Ha can be irrigated. (THE NEW INDIAN EXPRESS 201104)

Plan to desilt Cauvery delta channels TN has planned repair and restoration to the river channels at a cost of Rs 1 B. Damaged regulators, sluice gates, shutters, minor desiltation works and repairs to the existing bed dams in the Cauvery, Pennar and Grand Anicut canals will be taken up, if the necessary funds are allocated. Last year the govt had allocated Rs 120 M to carry out repairs and Rs 60 M to restore the shutters in the bed dams. Many of the channels have not been desilted for years and this has affected the flow of water. (THE INDIAN EXPRESS 261004)

Haryana The govt has proposed Rs 1.68 B Dadupur Nalvi Irrigation Scheme at Adhoya in Ambala district to be completed in 3 years to benefit 112 villages of the Yamunanagar, 28 of Ambala and 192 of Kurukshetra districts and is to have 381 kms long channels. (THE TIMES OF INDIA 141104)

CAG criticizes HP A performance appraisal by the CAG has shown that inadequate release of funds by the state has affected the pace of the Shah Nahar project. Shah Nahar is a major inter-state irrigation project under AIBP and was approved in 1997-8, with an envisaged potential of 15 287 Ha of irrigation capacity. As of March '03, irrigation potential of only 655 Ha has been created of which only 41 Ha has been utilised. Due to the diversion of water of the Beas river by the Punjab Govt to the Mukerian hydel channel by construction of Shah Nahar barrage, the irrigation right of the inhabitants were adversely affected. To compensate for this Rs 260 M were received from Punjab during 2001-3. The CAG has pointed that the HP govt allotted only Rs 56.4 M as the state share during these two years and the balance amount of Rs 203.6 M remained unutilised. The executing agency attributed the non-utilisation of the amounts received from the Punjab Govt to the lack of infrastructure. This was not tenable because the Punjab Govt had started releasing funds from 1997-8 onwards and the project authorities had sufficient time to create necessary infrastructure and ensure the utilisation of funds. HP has requested the Centre to provide one-time special assistance of Rs 1.2 B under the AIBP to meet the requirements of the Shah Nahar project. 61% funds for the project had to come from Punjab, says HP CM.

➤ The Shah Nahar irrigation project being built on the foothills of Kangra dist is likely to be delayed for at least four years unless HP and Punjab govt release their share of funds in time. The construction, which began in 1997, was to be completed this year. The project cost had been estimated at Rs 1.433 B, which was to be shared by HP and Punjab in the ratio of Rs 548.3 M and Rs 884.8 M. The project cost has gone up to Rs 2.5 B. It is claimed that the project would benefit 93 villages by providing irrigation to 37000 Ha [these figures differ from the one given in CAG report cited above]. It was launched following a prolonged agitation by residents in 1982 when Punjab had built the Mukerian barrage by diverting the waters of the Beas passing through Himachal. The Punjab Govt in 1983 had agreed to bear the cost of the construction of the project and to release 228 cusecs regularly. Before the construction of Mukerian channel, farmers of HP in Nurpur and Jawal subdivisions of Kangra district used to irrigate the fields through small kuhls from Beas. After the construction of the barrage irrigation for over 15 000 ha was destroyed. Punjab has so far released Rs 295 M and has spent Rs 100 M on the construction of the canal, which passes through Punjab. Punjab as so far allocated over Rs 500 M. So far only 11 km of the 48.85 km of right bank canal planned has been constructed. Rs 876.2 M is spent on the project so far. Currently, the HP govt receives over half the funds for the project via the Punjab Govt. HP CM has asked for funds directly from the programme.

➤ **AIBP** Inter-state projects were given priority under the AIBP and the following 10 inter-state projects with irrigation potential of 2.78 M Ha were approved: the

Bansagar dam, Tillari, Gurgaon Canal, Shah Nahar, Urmil, Subarnarekha, Rajghat, Sardar Sarovar, Mahi Bajaj Sagar and Indira Sagar. Upto March '03, after the release of Central Loan assistance of Rs 38.06 B, only Urmil project has been completed creating an irrigation potential of 1 192 Ha. During 1996-2003, 25 multi-purpose projects including the Ranjit Sagar and the Shahpur Kandi Dam were covered under the AIBP. These 25 projects involved the creation of 5.84 M Ha out which only 0.376 m ha was achieved. (BUSINESS STANDARD 221104, THE TRIBUNE 221104, 271104)

AIBP to include rehabilitation works The govt has proposed changes to the AIBP guidelines to allow the inclusion of rehabilitation works, in addition to the last mile projects. The exemption would be made in the case of states where there are no major pending irrigation projects. For rehabilitation and modernisation works, repair, renovation and restoration of all water bodies, which involves reclamation of lost irrigation potential, a new programme is likely to be introduced in the 11th Plan. Currently, the AIBP guidelines allow inclusion of a new project only against completion of another one. However, for 2005-6, the guidelines are likely to be relaxed to allow inclusion of projects expected to be completed within one year, without a requirement to show a corresponding completed project. The AIBP was introduced in 1996-97. Of the 178 large & medium projects that were identified, 28 have been completed. Rs 28 B was allocated for AIBP in 2004-5. (BUSINESS STANDARD 221104)

Chhattisgarh The Water resources Minister has said that irrigation has increased from 23% to 26.78% in last three years and the govt wants to increase the potential up to 75%. The state is receiving irrigation benefit from 3 large, 30 medium and 2067 small projects. While 7 large, 8 medium and 448 small projects are ongoing to irrigate up to 30.59% or 0.221 M Ha lands by 2007. The govt has also proposed 190 stop dams and anicuts on perennial rivers and nalas. (DESHBANDHU 061104)

WATER OPTIONS

Rainwater Harvesting According to a Central Ground Water Board study, groundwater levels have gone down by over 4 m in 306 districts over 20 states over the past 20 years. The centre spends Rs 2 B per year directly, while 70% of the annual expenditure of Rs 10 B on Employment Guarantee Scheme goes towards water conservation. In the last two years, there has been an additional contribution of Rs 2.58 B by way of people's participation through voluntary labour in water conservation projects. (THE FREE PRESS JOURNAL 141004)

Grey water option in Delhi According to a study by research Foundation for Science, Technology and Ecology in coordination with Water Workers Alliance, 235 MGD can be saved if all residents start using recycled 'grey water' for non-drinking purpose. This 235

MGD is the gap between demand and supply in Delhi. The infrastructure cost for meeting this shortage through conventional methods like setting up treatment plants and arranging additional raw water is estimated to be Rs 20 B. The new method employs simple technology and the set-up will cost less than Rs 4000 per household. The water used for bathing and laundry is collected in a pit and pumped up in to the treatment plant fitted with filters. 'Grey water' recycling has been successfully implemented in some cities abroad including Arizona, New Mexico & Sydney.

➤ **RWH** The Delhi Development Authority has for the first time made provision for RWH along the road linking National Highway-8 to Dawrka. The DDA is also examining the possibility of providing RWH structure along the roads in Dawrka, and consultations were going on with the Central Ground Water Board. (THE HINDUSTAN TIMES 150904, BUSINESS LINE 081104)

Haryana groundwater recharge The Haryana Govt has sanctioned Rs 28.5 M for artificial recharge of groundwater to be implemented in Kurukshetra, Ambala, Karnal, Kaithal & Panipat under which 273 structures would be constructed. The money will come from centre and state in the ration of 75:25. (DANIK BHASKAR 281004)

WB's Uttaranchal Decentralised Watershed project

The state is divided into 1110 micro-watersheds. The programme would cover 19 development blocks of 10 districts: Almora, Bageshwar, Chamoli, Champawat, Dehradun, Pauri, Pithoragarh, Rudraprayag, Tehri and Uttarkashi over the next seven years. The projects will be implemented through gram panchayats and the gram panchayats will be free to choose and implement the most suitable options. (BUSINESS LINE 151004)

Watershed award Rajasthan has bagged the India Tech Excellence Award-'04 for Mangaliawas village project in Ajmer as an example of community based sustainable development. (THE HINDU 291004)

Rajasthan to involve NGOs The Rajasthan's high-level committee on water resources announced that the participation of NGOs in management & implementation of water schemes would be promoted on a regular basis. Projects worth Rs 20 M will be given to NGOs during 2004-5. The NGOs will be given projects valued at Rs 400 - 500 M during next 23 years. The CM pointed that rainfall was the source of 70% of water available in the State and the NGOs were playing a significant role ensuring people's participation in conservation and prevention of the wastage of water. (THE HINDU 251004, 301104)

Check dams on Rajasthan Rivers The Rajasthan Govt has sanctioned a Rs 160 M project for construction of 21 check dams on Ahu, Kalisindh and Parwan rivers in Jhalawar district over the next 3 years. In phase-I, 5 would be constructed on Ahu river and 2 on Kalisindh river. (DANIK BHASKAR 281004)

Jharkhand to build 9000 small reservoirs Jharkhand has recently declared that it would build 0.1 M small water reservoirs. Due to a fund crunch, the state has now offered to build only 9000 such reservoirs. Govt said total outlay for building 0.1 M small reservoirs would have been Rs 8.53 B. The state had thought of sharing 12% of the costs, or about Rs 1.02 B, while the balance, it was thinking of approaching the Centre for support. Now it has decided to garner Rs 1 B from its calamity relief fund to build these 9000 reservoirs immediately. Each such reservoir would cost Rs 85300, the total construction cost would be Rs 767.7 M. The state, in a memorandum to the 12th finance commission, has demanded a Rs 17 B package for irrigation. (THE ECONOMIC TIMES 051004)

J&K Watershed Project Even after lapse of over 75% of the period prescribed for completion of the project, only 6% of Watershed works have so far been executed due to non-release of funds in time and uncalled-for bureaucratic hurdles by Drought Prone Areas Programme Agency, Doda, in the working of Project Implementing Agencies. The works in all the watershed projects, involving Rs 240 M, are closed while the governing body of DPAP has decided to withdraw all the projects assigned to NGOs and SKUAST Baderwah claiming that performance of these PIAs is not upto the mark. The PIAs and elected representatives are holding the govt agency responsible for stalling works. (Daily Excelsior 251004)

Watershed model in AP The International Crops Research Institute for Semi-Arid Tropics developed Adarsha (ideal) watershed management project near Kothapally village has yielded dramatic results. Kothapally is a semi-arid tropic region defined by unpredictable weather, limited and erratic rainfall and nutrient-poor soil. With a population of 1 500 Kothapally receives an annual rainfall of 716 mm. There was a 20% deficit in 2001, and a 30% deficit in 2002. The watershed around the village was developed by ICRISAT and implemented in collaboration with the MV Foundation, the Central Research Institute for Dryland Agriculture, the National Remote Sensing Agency, the Drought Prone Area Programme and the farmers. Kothapally now has 13 check-dams and mini-percolation tanks. ICRISAT employed low-cost soil and water conservation structures, environment-friendly nutrient management options, pest and disease control, crop diversification with legumes to avoid air and water (groundwater, streams and rivers) pollution, on-farm income-generation through innovative crops, off-season/off-farm income-generation for landless labourers, women and youth. The results were direct and immediate. Groundwater levels improved by 5-6 m, green cover increased from 129 Ha in 1996, to 200 Ha in 2000. Between 1998 and 2001, maize production increased from 1.5 to 3.3 T/Ha, and sorghum from 1.07 to 2.6 T/Ha. Incomes jumped to Rs 20 500/ha with profits up to Rs 14 600/Ha. (www.icrisat.org)

RWH in Dibrugarh Innovative water harvesting programmes have put an end to the water shortages in the Joypur Block in Dibrugarh district. The 0.43 M project was ready in 4.5 months. The villagers get water at their doorsteps. The water flowing from the mountain passes through rocks for primary filtration. Then the water goes into the tank which has a filter installed. The filtered water is then collected in a 20 000 litre reservoir benefiting 4000 villagers. The reservoir is connected to pipelines, which passes through villages. Excess water of reservoir is released into the paddy fields. The reservoir is at an elevation of 35 m above village level so no electricity is required to pump the water. 1.7 km length pipeline was installed. (ANI PR 171004)

RWH in Bengal A model project supported by the US-AEP would be set up in Purulia district's Bagmundi town in W Bengal. The project, which will also run in Birbhum district's Suri, is being implemented by the Kolkata based Institute of Wetland Management and Ecological design. In both districts, availability of water for drinking and sanitation during the dry season is a major problem. Though rainfall is 1365 mm, the terrain results in major run-off. Besides water scarcity, parts of Birbhum also face the problem of fluoride contamination in groundwater. (THE ECONOMIC TIMES 071004)

WB project in HP The World Bank has cleared a Rs 5.4 B watershed project for the mid-Himalayas of Himachal Pradesh. The WB also agreed to extend the ongoing Kandi project for six months and provide an additional Rs 100 M in view of the good work done so far. The project was to end in March '04. (BUSINESS STANDARD 081104)

WATER POLLUTION

Madras HC stops release from Orathupalayam dam

The Madras High Court has stopped release of water from Orathupalayam dam in Erode district acting on a petition claiming that it was contaminated by effluents from the garment firms in Tirupur. Issuing an interim direction, a Division Bench comprising Chief Justice B Subashan Reddy and Justice AK Rajan, posted the writ petition filed by 'Noyyal River Ayacutdars Protection Association'. Even borewells in about 70 villages in the vicinity of the factories had become contaminated, the petitioner claimed and sought a direction to restrain the TN PWD from releasing water from the dam into Noyyal river till the water was treated according to the prescribed standards. (THE TIMES OF INDIA 210904)

Haryana Water quality deteriorates As per a study by the CSSRI, only 37% water of the state is potable. The quality of 55% water is not good. About 20% water is saline, 35% is Sodic & 45% is Sodic saline. (DANIK BHASKAR 261104)

BOTTLED WATER

Soft drink companies asked to print contents including pesticide levels

The Rajasthan High Court banned the sale of Pepsi, Coca-Cola and other soft drinks unless the manufacturers display on their bottles a list and % of contents, "including the presence, if any, of pesticides and chemicals, on the bottle, package or container, as the case may be". Delivering its judgement on Oct 8, '04 on a PIL filed by advocate Swati Bhati in March 2003 on behalf of the Youth Welfare Society, Jaipur, a bench of the Chief Justice, Mr Anil Dev Singh, and Mr Justice KS Rathore said since people paid to buy the product, the consumer should know whether it was safe.

"Commercial Interests are Subservient to Fundamental Rights"

Rajasthan HC dismissed a review petition of soft drink companies against its directive to them to list contents of their products. On behalf of Coca-Cola and PepsiCo, respectively, former Union law minister Arun Jaitley and senior advocate Iqbal Chhagla had challenged the order on the ground that it would force their clients to compromise with their "commercial confidentiality". Passing such directives, they argued, was in the domain of the legislature and the executive, not the court. The advocates further argued that since their products were bottled at different places, it was not feasible to fulfil the court directive as pesticide content in water varied from place to place. The advocates told the court that the directive was against Article 14 of the Constitution — which ensures equality before law — as it bound only the manufacturers of beverages and not foodstuff makers. Such directives, they argued, could not be given to private parties under Article 226 of the Constitution. Earlier, the court had said that according to Article 19 (I) (A), people have the right to know about the product they are buying and consuming. "In case such a disclosure is made, there would be panic in the market and the business will dwindle," the companies argued and added that Article 19 provided freedom of expression, not right to information. The court said: "Commercial interests are subservient to fundamental rights." (BUSINESS LINE, THE ECONOMIC TIMES 091004, THE TELEGRAPH 041104)

Anti-Coca-Cola Agitation in Rajasthan

Kaladera, in Govindgarh block, is a large village about 40 km from Jaipur city. An overwhelming majority of its 12-13 000 inhabitants engage in agriculture. This was earlier a fairly fertile region. But ground water has fallen sharply in the last few years. This area has been a declared a 'dark zone'. "Just 7-8 years ago, the wells

used to have water at about 10-15 ft. Cultivators here have to go down 125 ft to get water. The Coca-Cola plant is just a couple of kms away, at 39-40, RIICO Industrial Area. Established in 1999, the bottling plant extractions have been increasing. According to the recent Report by the Central Ground Water Board, Western Region, and the Rajasthan Pollution Control Board, among others, the Coca-Cola plant extracted 0.138 MCM of water in 2002-3, and 0.174 MCM in just nine months to Dec '03. The declining water table has had multiple effects on agriculture: rising input costs, falling productivity and lesser land being tilled. Nearly fifty villages which fall in Chomu and Amer tehsils have been affected, including Kaladera, Anop Pura, Kanarpura, Bai Ka Bans, Sabalpura and Dhinoi. Struggle against this famine is going on. On Feb 2 '03, over two hundred residents of 22 villages met in Kaladera and passed a resolution that the Coca-Cola plant be closed down. In the weeks that followed, Struggle Committees began to be formed in some of the affected villages. At the June 5 sit-in, over two thousand people held a demonstration in Kaladera against the Coca-Cola plant. By this time, a number of organizations in Rajasthan were actively involved. Sangharsh Samitis have been formed so far in 32 of the about 50 villages affected. In Jaipur on Aug 3, hundreds of students and activists marched to the Rajasthan legislature, demanding the closure of the Coca-Cola plant in Kaladera and of 23 new breweries in the state. (www.indiaresource.org)

Police Attack Anti-Coca-Cola Protest A massive demonstration, with over 1 000 people was held at the Coca-Cola bottling plant in Mehdiganj, Uttar Pradesh to demand that the bottling facility shut down. Armed police reacted violently, beating and injuring many, including women. Over 350 people were arrested. This is rapidly becoming part of a pattern in Coca-Cola's response to the growing resistance in India - using violence to suppress opposition. (www.indiaresource.org)

Stop further release, Bisleri and others told

The Maharashtra Food and Drug Administration has directed Parle Exports, manufacturers of Bisleri bottled water, not to release the product in the market till further order. The company failed to conduct required microbiological tests as a quarantine procedure as per Bureau of Indian Standards norms. The FDA has also directed the local licensing authority, Brihanmumbai Municipal Corp, not to allow the production and sale of the product until the company fulfils the BIS norms. Other companies who were told to stop their sale in the market are Parle Bisleri (Mumbai), Pawan Aqua (Nandurbar), Ashwarya Ind (Jalgaon), Sify Minerals (Ratnagiry), Surat Beverages (Dadar & Nagar), Tikoo ji (Thane), Vijy Aqua (Chitalisar), Sumit Fluorine (Talasari) and Brij Water (Badlapur). (THE ECONOMIC TIMES, THE TRIBUNE 281004, DANIK BHASKAR 291004)

GROUND WATER

Punjab According to the Punjab Agriculture University, the water table in Punjab fell by 42 cm per annum during 1997-2001. The future projections are that by 2010 entire central Punjab will have a water table below 16 m depth. As compared to 2001, the water table in the central districts will fall by 14% in 2005, 34% in 2010 and 75% by 2020. He said the paddy is the main "villain". As per future projections, Punjab can't afford over 1.6 M Ha of paddy as compared to around 2.53 M Ha under paddy at present. (THE TRIBUNE 061004)

GROUND WATER CONTAMINATION

Growing arsenic contamination

No	Districts	Year of Survey	Agency Studied	Contamination(ppb)	
				Max	Min
Bihar					
1	West Champaran	2003-04	UNICEF	<25	<5
2	East Champaran	2003-04	UNICEF	48	<5
3	Sitamarhi	2003-04	UNICEF	48	<5
4	Madhubani	2003-04	UNICEF	<25	<5
5	Supaul	2003-04	UNICEF	<50	<5
6	Araria	2003-04	UNICEF	<50	<5
7	Kishanganj	2003-04	UNICEF	<10	<5
8	Purnia	2003-04	UNICEF	<25	<5
9	Katihar	2003-04	UNICEF	<25	<5
10	Patna	2004	JU	1466	<3
11	Bhojpur	2002	JU	1654	<3
		2003-04	UNICEF	120	<5
12	Buxar	2003	JU	2182	<3
		2003-04	UNICEF	>50	<5
13	Saran (Chapra)	2004	JU	838	<3
14	Vaishali	2004	JU	288	<3
Uttar Pradesh					
15	Pilibhit	2003-04	UNICEF	<25	<5
16	Lakhimpur	2003-04	UNICEF	<50	<5
17	Bahraich	2003-04	UNICEF	<50	<5
18	Shravasti	2003-04	UNICEF	<50	<5
19	Balrampur	2003-04	UNICEF	<50	<5
20	Siddarth Nagar	2003-04	UNICEF	<10	<5
21	Mahrajganj	2003-04	UNICEF	<25	<5
22	Kushinagar	2003-04	UNICEF	<25	<5
23	Ballia	2003-04	JU	3191	<3
24	Unnao	2003-04	UNICEF	<5	<5
25	Lucknow	2003-04	UNICEF	<10	<5
Chhattisgarh					
26	Rajnandgaon	1999	JU	880	<3
		1999	UNICEF	49	<5
27	Durg	1999	UNICEF	>10	>10
Assam					
28	Dhemaji	2004	JU	490	<3
29	Karimganj	2004	JU	303	<3
Jharkhand					
33	Shahibganj	2003-04	JU	1012	<3
West Bengal					
31	Malda	Since 1988	JU	1904	<3
32	Murshidabad	Since 1988	JU	3003	<3
33	Nadia	Since 1988	JU	3200	<3
34	North 24 Parganas	Since 1988	JU	4772	<3
35	South 24 Parganas	Since 1988	JU	3700	<3
36	Kolkata	Since 1988	JU	825	<3
37	Howrah	Since 1988	JU	622	<3
38	Hooghly	Since 1988	JU	600	<3
39	Bardhaman	Since 1988	JU	2230	<3

School of Environment Studies, Jadavpur University, Kolkata

According to the studies by UNICEF, CSE and Jadavpur University, the arsenic contamination is spreading to Uttar Pradesh, Jharkhand, Chhattisgarh and Bihar. Chronic exposure to arsenic that comes usually from drinking water, can mean skin lesions, pigmentation of the skin and even cancer. A CSE study revealed that the arsenic levels in the well water and even community hand pump water were much above the accepted WHO standards. In most cases, the level was 5-7.5 times the accepted level. (Down To Earth 150904)

W Bengal Arsenic pollution WB tops the list of affected zones in the Indian subcontinent with regard to arsenic contamination of drinking water sources. Union Minister for Water Resources said that out of the 269 blocks surveyed in WB, 53 had been found to be critical, 22 blocks semi critical and the rest safe. 28.1 M people were at risk in WB of arsenic contamination.

➤ In 1959, tubewell irrigation was started in WB in alliance with the Exploratory Tubewell Org. of centre. As per the 2001 census, there are 550 000 tubewells in WB. 64% of the 54 640 sq km cultivable land is irrigated by tubewells. Due to this the arsenic levels have risen in the shallow aquifers. The rot set in because water used for farming had high levels of arsenic and the chemical accumulated in the roots of rice plants – in some cases, the levels were reported to be 169 ppm. When these roots were ploughed back, arsenic was released from them. The chemical then found its way to the aquifers. (THE HINDU 151004, Down To Earth 311004)

Arsenic contamination in UP A survey by the Centre for Science and Environment at Ballia district in W UP showed that arsenic present in the soil had contaminated the groundwater. The blood test performed on a village resident in Balia dist had shown an arsenic count of 34.50 ppb as against the safe level of 1-4 ppb. Water from his hand pump contained 73 ppb, when the BIS reference level is at 10 ppb. The laboratory analysis of handpump water, hair and nails of people in the villages has found levels of arsenic much higher than what is considered safe. 4 800 – 6 300 ppb arsenic was detected in the hair samples. Toxicologists say that 80 - 250 ppb can be tolerable. (CSE PR 051004)

Toxic Groundwater in North Every year quality check of groundwater is conducted by CPCB in some cities like Lucknow, Kanpur, Ghaziabad in Uttar Pradesh & Faridabad and Ballabgarh in Haryana. As per its report, level of fluoride and chloride in groundwater is higher than prescribed limit. The groundwater in Ghaziabad has now become dark in colour and toxic. The Coliform count in groundwater is also higher than prescribed limit. According to a report from MEF, Hexavalent chromium has been found in the water samples of Kanpur that may affect digestive system of human body and may lead to cancer. This may also cause cancer in human and animal skin after bathing. Report also mentioned that the water of Ganga has also turned dark in colour at many places. (DANIK JAGRAN 290904)

URBAN WATER SUPPLY

DELHI 25% water unfit for drinking Out of 681 samples taken from various points (from the source till delivery to the consumers) 25% were found to be “unfit” for drinking, MCD has told the Delhi High Court. 34% of the samples taken from hand pumps (55 out of 162), 24% of Delhi Jal Board water samples (89 out of 368) and 20% (7 out of 38) from DJB stored water were unfit for drinking.

CAG on DJB The Comptroller and Auditor General of India, in its report for 2002-3, has criticized Delhi Jal Board for non-implementation of works, inadequate coverage of sewage system, giving undue benefits to contractors and making Yamuna dirtier. The CAG report said that the DJB incurred extra expenditure of Rs 174.6 M due to delay in processing of proposals and award of works. An avoidable expenditure of Rs 100 M was incurred due to execution at higher rates and undue benefit to contractor. Poor utilisation of available departmental resources resulted in avoidable expenditure of Rs 15.8 M on execution of de-silting and cleaning works through contractors. The DJB had a sewage treatment capacity of 512.6 MGD, but could treat only 296.24 MGD of sewage during 2002-3 against sewage generation of 652 MGD. Thus 55% of the sewage was flowing untreated in to the Yamuna. Out of the loans and grants of Rs 3.264 B released during 1998-9 to 2002-3 by the Delhi Govt, the Board could utilise only 1.859 B.

‘DJB not fit for privatisation’: WB The WB, which is carrying out a study on the Delhi Jal Board, has concluded that due to its ‘inefficient and poor’ system the DJB was not “fit enough” for privatisation. They have instead recommended improving the water distribution system and its efficiency.

➤ According to WB’s “World Development Report 2004”, Delhi’s water supply is among the worst in many big cities of the developing world. Only Pakistan’s Karachi gets water for lesser hours than Delhi. The report has evaluated water supply and losses in 15 cities. In Delhi almost 40% of the 650 MGD treated by DJB is either lost or stolen. The City of 14 M has just about 1.45 M water connections and the daily average availability per person ranges from 400 litres in NDMC areas and to less than 30 litres in Mehrauli. So large number of people who do not get the “cheap” DJB water end up paying much more to private vendors. In fact, the “UN World Water Development Report 2003” had found that among 23 big Asian cities, Delhi residents paid the maximum – 489 times – more for buying water from other sources than the municipality.

Water tariff hike The Delhi Govt has finalized the proposal for raising tariff of water being supplied by DJB. The tariff is said to be based on step up tariff basis from less to more use of water. The tariff will increase the water rates about four folds.

Delhies oppose tariff hike Opposing any move towards raising water tariffs and privatisation, concerned citizens and different organisations of Delhi participated in a seminar on Delhi Water Supply "Public-Public Partnership: A Dialogue Between Citizens and the Govt" on Sept 8. Organised by the RFSTE, Paani Morcha, INTACH, Mahila Jagriti Samiti and RWA, the aim of the deliberations was to offer alternatives to the proposed raise in tariffs. Participants said that the move by the DJB towards increasing the water tariff is about going towards privatization. Among the "constructive alternatives" discussed included cleaning the Yamuna, increasing ground water level and reducing the level of wastage by involving the RWA. Instead of increasing the rates for the common man the commercial users should be charged more. If the citizens are involved, they will by themselves ensure that there is no wastage of water and will keep a check on theft of water. It was deliberated that much more cost effective and flexible option is that better management, including monitoring leaks, checking theft and corruption, about 50% of the water shortage would be solved. (BUSINESS LINE 060804, THE TIMES OF INDIA 160804, THE HINDU 230804, 090904, HINDUSTAN 090904, THE HINDUSTAN TIMES 140904)

Chennai desalinisation plant in trouble The Central Public Health and Environmental Engineering Organisation has suggested that there is no justification for the Rs 10 B desalinization plant for water supply. The cost projections, despite the absence of the DPR have been rapidly escalating to now hit Rs 17.5 B. The 300 MLD plant to be located in Minjpur near Chennai will be executed through a SPV called Chennai Desal Company Ltd, promoted by TN Water Investment Company Ltd, a joint venture company of the Govt of TN and IL&FS. Proposed to be implemented through public private partnership, funds will be raised by CDL through equity support of Rs 8.75 B and debt, loans and mortgages to the extent of Rs 8.75 B. The State has sought equity support of Rs 2.2 B from the Centre. The CPHEEO has argued that there is no justification for the project if TN receives the promised 930 MLD of water from the AP's Telgu Ganga Project. The report also questions why the initial concept report from TN only mentions a supply of 400 MLD from the TGP up to 2021 and is silent on the balance 530 MLD. The shortfall between demand and availability in TN has been projected to touch 775 MLD by 2021 but with the additional 530 MLD from TGP, it becomes 245 MLD.

➤ **New Veeranam** The TN Public Works Minister has said that the Govt had implemented a Rs 3 B project to ensure 180 MLD water to Chennai from 131004. The works were launched in Feb '03 and the WB had offered 1.64 B loan. The previous govt had abandoned it. He claimed that the govt has ensured that the farmers dependent on the Veeranam were not affected as only surplus water was being drawn for Chennai through tubewells in Panruti and Neyveli Rivers.

➤ **Coleroon water project** The TN Govt has urged the Centre to grant Rs 3 B for its project of bringing

Coleroon water to Chennai to get 840 MLD for Chennai. As per the proposal, six wells are to be sunk in the Coleroon riverbed, upstream of the lower Anicut, about 260 km south of Chennai. Each well will yield 25 MLD. According to the existing norms for Central drought assistance, funds are given only for temporary works. The Coleroon project does not fall in the category. Experts from the IIT-Chennai, Anna University, the TN Water Supply and Drainage Board and the Groundwater wing of the PWD gave recommendations for fine-tuning the project. The work has begun. (THE ECONOMIC TIMES 170904, THE HINDU 011004, 231104)

WB loan to Karnataka The World Bank said the state was likely to get Rs 4 B for urban water supply project wef 2005-6. The WB had suspended the Karnataka Economic Restructuring Loan on the ground that the govt hadn't effectively implemented the power sector reforms. (THE HINDU 150904)

Rajasthan The Rajasthan Govt has sanctioned Rs 800 M for laying a 40 km pipeline for supplying drinking water to Ajmer district following the multiple damages to the pipeline bringing the Bisalpur dam waters to the district. The Minister for Public Health Engineering Dept said another proposal for laying a 90 km pipeline from Sarwara to Thadoli was under consideration. The project would cost Rs 2.5 B. There was also a proposal for increasing the storage capacity of the Makhupura tank near Ajmer to 7.5 MLD. (THE HINDU 210904)

➤ **ADB loan for Jaipur** The ADB will help Rajasthan to construct a new water supply system for Jaipur through a \$60 M loan reallocation under the ongoing Rajasthan Urban Infrastructure Development Project. The \$362 M project, backed by an ADB loan of \$250 M approved in Dec 1998, is about 60% complete. The current supply system in Jaipur is almost 100% dependent on the ground water sources, which are shrinking and losing quality due to over extraction and droughts. A detailed aquifer study financed by a grant from the Govt of France completed in 2000, indicated that at current extraction rates, the aquifers in Jaipur would be severely depleted before 2010. The state consequently decided to construct the long planned Bisalpur water supply system now, instead of by 2010 or so as originally planned and sought the ADB's assistance to reallocate loan savings. The \$60 M loan reallocation will help construct a new \$220 M water supply system for Jaipur, from the existing Bisalpur dam 120 km from Jaipur. The \$120 M Phase-I will provide Jaipur with a secure water source through 2021 and beyond, thereby allowing the groundwater aquifers to recharge. \$104 M Phase-II of Bisalpur system is supported by an \$85 M loan from the Japanese Bank JBIC and will help in rehabilitation and expansion of the water distribution in Jaipur. (BUSINESS LINE 141004)

Godavari water for Hyderabad The Andhra Pradesh Govt has given the green signal for tapping Godavari waters to augment the drinking water for Hyderabad

after the completion of the phase-II of the Krishna project. The Govt asked the Hyderabad Metropolitan Water Supply and Sewerage Board to explore the utilisation of the Godavari waters either from Yellampally in Karimnagar or Midmanair in Medak. It would take 5-6 years for the completion of the Scheme and it would cost about Rs 10 B for drawing 90 MGD. (DECCAN CHRONICLE 091104)

RURAL WATER SUPPLY

Govt to revive Rajiv Gandhi Mission The UPA Govt has decided to revive Rajiva Gandhi National Drinking Water Mission, which was stopped from April 1999. The Govt will allocate about Rs 15 B in 2005-6 for the mission. The revival will particularly be a boon for states like W Bengal, Bihar, Jharkhand, Assam, UP, Chhattisgarh, Punjab, AP and Haryana, which are facing arsenic and fluoride problems. The WB CM said that the state faced serious problems when the funding was stopped in 1999. Projects worth Rs 3.47 B were going on then, 75% of the cost of which was to be shared by the Centre. After the funding was stopped, WB had to scale down the projects and 28.1 M people were affected. The WB will receive from Centre Rs 200 M to tackle the arsenic problem as part of the revival. (THE ECONOMIC TIMES 151004)

IIPA asked to list 'no water' villages The Centre has asked the Indian Institute of Public Administration to conduct a survey of the villages and habitations that are not covered with potable drinking water. About 6000 rural habitations lack a single source of potable drinking water and 69000 habitations are partially covered. 78% villages lack sanitations facilities. (THE HINDU 041104)

Investment on unviable scheme The Govt of Madhya Pradesh accorded administrative approval for Rs 490.3 M for water supply scheme for 34 villages, sanitary dug wells for 37 villages and hand pumps for 150 villages in April 1998. The expenditure was to be shared between centre and state in the ratio of 75:25. The Authority approved Hathini River as an alternative source in June 2000. The project on river Hathini was designed only for 10 years against the prescribed period of 30 years. The capacity of intake structure was reduced to 2 MLD as against 4.5 MLD in original scheme. Rs 309 M had been incurred on the scheme as of Dec '02, Audit observed that the villages Kakrana and Bahadwa where the intake well, raw water pumping main, clear water pumping main etc were situated were coming under areas of submergence in the ongoing work of the SSP. The expenditure has thus become unfruitful. (Report of CAG of MP -Civil for the year 2001-2)

Contamination The Union Rural Development Minister has admitted that country wide block surveys between 2000 and 2004 reveal that 31306 habitations are fluoride affected, 5029 arsenic affected, 23495 salinity affected, 13958 nitrate affected, 111201 iron affected. In all 209900 habitations have severe water quality

problems. Availability of water is another major problem, with 5738 habitations not connected to any known source of water. Rajasthan leads with 2974 such habitations, followed by Punjab (927), J&K (777), Arunachal Pradesh (253), Assam (305), Maharashtra (392), Uttaranchal (33), Nagaland (41), Meghalaya (13) Goa (3) and Gujarat (1). The Minister said that implementation of the water and sanitation plans will require about Rs 310 B in a five-year period.

➤ 36 988 habitations have drinking water contaminated with fluoride beyond permissible limits. The highest number of such habitations (16 560) is in Rajasthan followed by 2 712 in Orissa. Uttar Pradesh, Tamil Nadu, Gujarat, Jammu & Kashmir, also figure prominently on this list having over 6 000 such habitations. Punjab has 927 such habitations. 3 133 habitations in W Bengal are suffering from arsenic contamination. The excessive presence of iron is affecting 138 670 habitations countrywide. Nagaland is worst affected in this case as almost one third of its habitations are affected. Tripura has 7 283 such habitations. 5 300 habitations in Uttar Pradesh and Madhya Pradesh are facing similar threat. Rajasthan is also facing excessive salinity in water with 14 415 habitations suffering. (THE STATESMAN 300904, THE HINDUSTAN TIMES 011004)

Fluoride problem in AP The Andhra Pradesh Govt is ready to spend Rs 4 B in the next three years to find a solution to the fluoride problem in Nalgonda dist, the CM said. The govt would give Rs 300 M in addition to the present allocation of Rs 1.24 B to complete the Alimineti Madhava Reddy project, the only source for the 604 fluoride villages. (THE HINDU 120804)

Kerala Jalanidhi scheme The Kerala govt has decided to extend the Jalanidhi scheme being implemented in five districts with people's participation to other districts following the success of the scheme State Water Resources Minister said. He said that the scheme envisaged to drinking water and sanitation in Panchayats, was now being implemented in Thrissur, Palakkad, Malapuram and Kozhikode. The scheme would be extended to select 50 village panchayats in other districts. Rs 1.016 B had been spent for the scheme started in 1999. Out of this Rs 749.2 M was govt share while Rs 133.2 M people's contribution and Rs 120.5 M by panchayats. Under the scheme 751 drinking water projects had been completed and 911 were under different stages. (THE TIMES OF INDIA 180804)

NABARD fund for Haryana About 294 drinking water supply schemes costing Rs 1.95 B have been sanctioned for implementation in 14 districts of Haryana by NABARD under Rural Infrastructure Development Fund to 694 villages, said the CM. He said that the schemes would be implemented in the Sirsa, Rohtak, Jhajjar, Bhiwani, Jind, Kurukshtra, Rewari Mahendragarh, Ambala, Kaithal, Panipat, Faridabad, Sonapat and Gurgaon districts. The target had been

fixed to augment the supply of drinking water in 525 villages at a cost of Rs 1.27 B during 2004-5. He claimed that the Govt had already augmented the supply of drinking water in 2985 villages to benefit 5.9 M people at a cost of Rs 9.345 B. He said that the state had set up 306 new waterworks, 899 new tubewells and augmented the capacity of 652 waterworks during five years. He said when Haryana was first carved out as a new state in 1966, only 170 villages out of a total of 6745 villages had the facility of piped water supply. In 2004-5, Rs 14.4 M had been spent on supplying to 557 villages and further Rs 12.7 M would be spent. (DANIK BHASKAR 290904, THE HINDU 191004, THE TRIBUNE 151104)

Bihar The Centre has released Rs 272.8 M to Bihar under the Rajiv Gandhi Drinking Water Mission as the first instalment for 2004-5. As per the ARWSP guidelines, 15% of the funds are meant for quality-related problems and 5% for water sustainability measures. The Union Rural Development Ministry has also released Rs 92.5 M under the mission as an additional central assistance to Bihar to meet the rural water needs arising out of the floods. (THE HINDU 061004)

Centre funds for HP The Centre has sanctioned an additional assistance of Rs 100 M to Himachal Pradesh under the Accelerated Rural Water Supply Scheme. The Union Rural Development Minister said that whereas last year Rs 500 M had been allocated for supplementing existing water supply to 1500 partially covered villages, this year Rs 400 M had been provided for 1700 villages. (THE TRIBUNE 201004)

FLOODS, LANDSLIDES

Bisalpur Dam in Rajasthan floods 76 villages 76 villages had been submerged as the Bisalpur dam overflowed. Heavy rains in Aug flooded several areas in Bhilwara, Kota towns alongwith a few villages in Tonk district. It is the first time in the district's history that such a flooding has occurred in the area, which is drought-prone. Villagers said that the entire yield of sorghum and barley worth millions have been damaged due to the sudden water flow. (ANI PR 131004)

Bengal Floods in W Bengal has swamped hundreds of villages, killing 3 and rendering over 0.65 M homeless. Over 50 000 mud houses have been damaged. Basirhat, Bongaon and Bagda blocks in the North 24 Parganas district bore the burnt as rivers including Ichhamati flooded vast areas, rendered 0.25 M marooned in the border district. Kalna and Katwa subdivisions of Burdwan district have also been affected. (BUSINESS LINE 180904, THE TIMES OF INDIA 220904)

Assam The death toll in Goalpara district ravaged by flash floods from E Garo Meghalaya on Oct 8 reached 192. Over 220 villages were destroyed. Gushing waters flooded Krishai, Rongjuli and Dudhnoi rivers. The railway track between Guwahati and Goalpara has been damaged at several points.

NE flood fund The CCEA sanctioned Rs 1.5 B as the Centre's share during the 10th plan for critical flood control and anti erosion scheme in Brahmaputra and Barak Valley for Assam, Arunachal Pradesh, Tripura, Sikkim, Mizoram, Nagaland, Meghalaya and Manipur. 90% will be grant and 10% loan. (THE INDIAN EXPRESS 121004, DANIK BHASKAR 131004, BUSINESS STANDARD 251104)

Bangladesh A rain-swollen river burst through an embankment in E BD, swamped more than 200 villages. The embankment of Gumti River breached. The deluge came as over 30 M people struggled to rebuild their homes and replant crops after floods in July-Aug – the nation's worst in six years. The flooding covered half of the nation and killed 766 people. (THE HINDU 170904)

China 177 persons have been killed and over 65 were missing in the worst floods and landslides unleashed by record rains in SW China's mountainous Sichuan Province & Chongqing Municipality. Landslides, mud & rock flow and flash floods caused most deaths. The 5-day violent downpour have affected 11.3 M residents, flooded over 0.4 M ha crop. The direct economic losses exceed 3.9 B Yuan. (THE TRIBUNE 090904)

Haiti The death toll from tropical Storm Jeannie rose to over 1070. Hardest hit was the northern city of Gonaives, flooded or buried by mud, ruining thousands of homes. Over 500 people died in Gonaives. (THE TIMES OF INDIA 220904, THE HINDU 240904)

SOIL EROSION

Erosion in Malda dist Erosion along the eastern bank of the Ganga has so far forced 2500 families to abandon their homes in W Bengal's Malda dist. Three blocks have been severely affected and over 165 Ha inundated. Fresh erosion to wipe out parts of the Panchanandapur area with a population of 40 000 in the Kaliachak-II block. The situation in the Manickchak and Rathua blocks is also grim with the Fulohar River having eroded its bank in the latter. (THE HINDU 040904)

Majuli island The largest riverine island in the World Majuli situated within Brahmaputra River in Assam has come under risk. Residents travelled 350 km to Guwahati, to explain the rapid erosion and flooding threatening the very existence of their homeland. In 1947, Majuli covered 1 500 sq km, reducing to 1 245.14 sq km in 1956 and 460 sq km in 1996. Now, Majuli's total area is estimated to be about 300 sq km by a recent survey by a group of govt agencies. The threat to Majuli's existence began in 1950 after a severe earthquake shifted the riverbed, causing massive silting that in turn led to heavy river erosion. There were 65 Vaishnavite monasteries in Majuli 50 years ago. Today there are 20 with the rest being wiped out following erosion. (IANS 140904, RASHTRIYA SAHARA 150904)

FISHERIES

India 2nd largest freshwater fish producer India has emerged as the 4th largest fish producer as production has crossed 6 MT. India is now the 2nd largest producer of freshwater fish, next only to China. In the 10th Plan, the annual target for overall fish production is enhanced to 8.2 MT including 3.3 MT marine fish and 4.9 MT inland fish. The fish catch crossed 6.2 MT during 2002-3 compared to 5.95 MT in 2001-2. (BUSINESS LINE 170904)

Haryana Prawn farming An area of 70.06 Ha has been brought under fresh water prawn farming in Haryana as against the target of 100 Ha by 2005-6. The CM has directed the Fisheries Dept to formulate a comprehensive project to popularise fish farming by giving incentives and training to the farmers. According to Fisheries Dept, Haryana was the only state that has given subsidy for prawn culture. (BUSINESS LINE 141004)

DROUGHT & DROUGHT RELIEF

Fund from centre The Centre has released Rs 4.729 B as advance from the Calamity Relief Fund to Rajasthan (943.5 M), Gujarat (735.7 M), Maharashtra (716.5 M), UP (666.8 M), Punjab (559.3 M), AP (451.4), Haryana (370.6) and MP (285.5). An advance release of 258.4 M had been recommended for Jharkhand.

➤ The Centre has sanctioned drought relief of Rs 1.568 B and 0.15 MT foodgrains for Tamil Nadu. The package includes Rs 890 M for drinking water supply for Chennai. The funds were released from the National Calamity Contingency fund. Rs 56.9 M was sanctioned under the ARWSP for restoration of drinking water systems. (THE HINDU 220804, 041104)

Bihar The Bihar Govt has declared all the 38 districts as scarcity hit. 55-80 % kharif crops have been damaged due to drought in 20 districts while 18 districts have faced severe floods. Patna, Nalanda, Bhojpur, Buxar, Rohtas, Bhabhua, Gaya, Jehanabad, Arwal, Nawada, Aurangabad, Munger, Sekhpura, Lakhisarai, Jamui, Banka, Saran, Sivan, Gopalganj and Vaishali districts have declared as drought hit. Mujaffarpur, Sitamarhi, Sivhar, E & W Champaran, Darbhanga, Madhubani, Samastipur, Saharsha, Supoul, Madhepura, Purnia, Araria, Kishanganj, Katihar, Bhagalpur, Begusarai and Khagaria have declared as flood hit. (HINDUSTAN 100904)

UP 37 of the 70 districts in Uttar Pradesh are drought-affected. Collection of govt revenue has been suspended in these districts till March 2005. The Union Agriculture Minister has declared Rs 660 M drought aid. (HINDUSTAN 220804, 250804)

Rajasthan 25 out of 32 districts have been affected by drought with an estimated loss of Rs 29.19 B. The drought-affected districts are Ajmer, Alwar, Banswara, Barmer, Bharatpur, Bhilwara, Bikaner, Chittorgarh, Churu, Dausa, Dungarpur, Sriganganagar,

Hanumangarh, Jaipur, Jaisalmer, Jalore, Jhunjhunu, Jodhpur, Kaurali, Nagour, Pali, Rajsamand, Sirohi and Udaipur. The govt has declared 18000 villages as drought affected. The state has demanded Rs 23.786 B cash and 28.8 MT wheat from Centre for drought relief. The CM also demanded from Union Agriculture Minister to take back changed rules for relief work. (RASHTRIYA SAHARA 221104, BUSINESS STANDARD 121104)

AGRICULTURE

Soil moisture and rainfall pattern of N India An international team of climate scientists, led by Randal Koster of US's National Aeronautical & Space Admin, compared the result of 12 different models used for studying the relationship between precipitation and landmass changes. According to the study, India is one of the four hotspots worldwide where rainfall seems to be directly linked to the amount of moisture in the soil. Soil moisture anomalies (variations) can persist for months. These anomalies can have a strong impact on evaporation and other surface changes, which in turn affect the atmospheric conditions. The inclusion of soil moisture data in a forecast system has the potential to improve the forecasts. The India Meteorological Dept sources said that due to inadequate data about soil moisture, its relationship with rainfall was never properly studied in India. (Down To Earth 150904)

Indian farmers win against Monsanto In the battle against biopiracy, Indian wheat farmers, backed by Greenpeace, won a significant victory after the European Patent Office revoked a patent given to Monsanto for its "Nap Hal" wheat variety. In its patent application, Monsanto claimed a special baking quality in the wheat was its invention. But Indian farmers, with the help of Greenpeace, were able to prove it was a trait bred by them and not genetically engineered. "This is a big success for farmers all over the world," said patent expert from Greenpeace Germany. "For the future of saving world food security it is extremely important to promote open access to seeds for farmers." (www.greenpeace.org)

Agriculture investment down Agriculture investment has come down to 1.3% of the GDP during 2001-2 as compared to 1.6% in 1993-4. The resource allocation to farm and allied activities has also remained stagnant at 5-6% of the total expenditure of the Centre and the State during the post-reforms period, according to PHDCCI. There has been a consistent dip in the combined spending of the Centre and the States in the agriculture during this period. S India has been the hardest hit, witnessing a declaration in fund allocation to agriculture and allied activities from 7% in 1996 to almost 5% in 2003. (BUSINESS LINE 161104)

Drought Animal Contribution Drought animal population has been steadily declining. India's 68 M draught animals carry over 5 times the freight and 4

times the passenger traffic carried by railways, in term of originating traffic. Drought animals contribute 27 000 MW power. They save 24 MT of diesel /year, worth Rs 330 B. Drought animals cultivate 65% of the cultivated area. The present value of draught animal (Rs 12000 per pair) is Rs 408 B. It would take 6.8 M tractors to replace drought animal power, costing Rs 238 B. Drought animal provide dung worth Rs 50 B /year. 5 MT firewood will be needed as substitute. (Down To Earth 311004)

RIDF The Reserve Bank of India's move to set up the tenth tranche of the Rural Infrastructure Development Fund of Rs 80 B would promote the states to undertake projects including for HEPs, medium irrigation and drinking water. The NABARD would fund under RIDF-10. RIDF-I with an initial corpus of Rs 20 B was launched in 1995-6, through contributions by way of deposits from domestic commercial banks, both from the public and private sector having shortfall in the agricultural lending, subject to a maximum of 1.5% of the shortfall of the net bank credit to agriculture. Since 1996-7, RIDF-II (with a corpus of Rs 25 B) sources of deposits from commercial banks have been broad-based by including shortfall, either in direct finance to agriculture and /or shortfall in priority sector lending. During 1995-6 to 2003-04, a total corpus of Rs 340 B was created under the various trenches of RIDF. Total sanctions under RIDF aggregated to Rs 346.78 B, disbursements stood at Rs 210.67 B and outstandings at Rs 140 B on 31/03/04. (FINANCIAL EXPRESS 271004)

AP farm panel Ms Jayati Ghosh of the Economics Dept, Jawaharlal Nehru University, has been named by the Andhra Pradesh Govt to head the Agriculture Commission. Utsha Patnaik, also from the JNU, is one of the members. Dr M S Swaminathan, will be the Commission's invitee along with six others. The constitution of Commission was one of the earliest initiatives announced by the CM. It will monitor the sector, making suggestions to the Govt, and tackle problems such as suicide by farmers. (THE HINDU 120804)

Pesticides and Cancer A study by the Chandigarh based Post Graduate Institute of Medical Education and Research on behalf of the Punjab Govt has revealed that excessive use of chemical pesticides is the cause of a series of deaths due to cancer in Talwandi block in Bhatinda district in Punjab. Irrigated by canal water Bhatinda district grows largely cotton and rice crop and is infamous for excessive use of chemical pesticides. The study confirms the findings of the earlier two studies by Kheti Virasat. The PGIMER study compared Talwandi saboo with the controlled area, Chamkaur Sahib in Ropar district. The study covered a population of 85315 in Talwandi Saboo and 97928 in Chamkaur Sahib. A total of 7 441 deaths were recorded in the last 10 years (1993-2003). Age adjusted cancer death rate per 100 000 per year at Talwandi Saboo was 51.2 while that at Chamkaur Sahib was 30.3. Age adjusted prevalence of confirmed cancer cases per 100 000 was

125.4 in Talwandi Saboo and 72.5 in Chamkaur Sahib. There were 107 confirmed cancer cases in Talwandi Saboo and 71 confirmed cases of cancer deaths in Chamkaur Sahib. Crude death rate in Talwandi Saboo was 4.48 as compared to 3.69 per 1000 in Chamkaur Sahib. The study also found presence of arsenic, chromium, nickel and iron in ground water in both Talwandi Saboo and Chamkaur Sahib. In tap water there were presence of chromium, mercury and high level of iron. Arsenic, chromium and mercury are known carcinogens. Heptachlor is a known carcinogen found in ground water and tap water in both places. In samples of vegetables presence of pesticide residues like heptachlor, Hopyrifos, aldrin, heptachlor endoepoxide, alpha-endosulfan, dieldrin, alpha-HCH were found in Talwandi Saboo while in Chamkaur Sahib presence of heptachlor, chlorpyrifos, beta HCH, gamma HCH, delta HCH were found. Comparatively the study done by Kheti Virasat revealed that in Punjab in general the groundwater tables have depleted from 15-20 feet to 150-200 feet in many parts on account of excessive exploitation without adequate recharge. In Punjab out of the 138 groundwater blocks, 84 are declared as dark zones and 16 are grey zones.

➤ **Pesticides affects child development** According to a study by Green Peace and Kheti Virasat, children in Bathinda dist in Punjab have slower physical and mental development than their counterparts in Ropar dist due to excessive usage of pesticides. The study was conducted in six states, Andhra Pradesh, Gujarat, Karnataka, Maharashtra, Tamil Nadu and Punjab. In Punjab, three villages – Mahinangal, Jajjal and Bangi Nihal Singh – were selected and comparisons made with four villages in Ropar dist. The differences were wide in mental ability test. In memory test, 52.2% from less exposed areas performed successfully, while in the cotton-growing belt, this percentage was only 28.2. It was noticed that various ailments like asthma, skin allergies, stomach infection, greying of hair and headaches were more common in case of children from Bathinda. The study also found from family history that in Bathinda, incidence of cancer, asthma, hypertension, kidney disorder arthritis and nervous disorder was greater than that in Ropar. To provide a platform to the sufferer farmers Kheti Virasat and Green Peace jointly organized a Public-Hearing on Environmental Health Impacts of Pesticides on 18 July 2004 at Bathinda. People from the worst pesticide affected villages of Talwandi Saboo and Rampura Phul block participated in the Public-Hearing. (THE INDIAN EXPRESS 270804, Kheti Virasat PR, THE TRIBUNE 251004, E-mail from Ashok B Sharma)

Haryana Bill on contract farming The Haryana Cabinet approved the draft of the Punjab Agricultural Produce Markets (Haryana Amendment) Bill, 2004, to provide for contract farming. The Bill, which seeks to amend the Punjab Agricultural Produce Market Act, 1961, aims at providing assured marketing of agricultural produce of the farmers at mutually agreed

price by a contract. It would promote agro-based industries and help in moving away from the system of regulated markets. (BUSINESS LINE 180804)

GM foods The health experts from Ministry of Health have suggested that the Genetically Modified foods should be granted permission for production and consumption only when it passes important tests including impacts on humans. The GM foods are being produced on 7.7 M Ha in 18 countries. The impacts of these foods have tested only on animals till date. If the Govt accepts the demand of experts then India would be the first country of the world in adopting highest standards on GM foods. (RASHTRIYA SAHARA 060804)

Plan for wasteland The Govt is planning a Rs 150 B horticulture mission to convert wasteland into wealth, agriculture Minister said. The proposal is awaiting Planning Commission nod and the private sector will play a big role. (THE TIMES OF INDIA 301004)

Organic farming in HP The MR Morarka Rural Foundation has signed a MoU with Shimla's District Rural Development Agency and another local organisation called Sameti to promote organic agriculture in Himachal Pradesh. The Morarka Foundation has begun conducting field survey in nine select blocks to identify ten village clusters suitable for launching the programme. This work is expected to be completed in six months. At present the Foundation is working in Rajasthan, Gujarat, Haryana, NE states, Punjab, UP, AP, TN, WB, Maharashtra, Bihar, Assam, Karnataka Uttaranchal, Chhattisgarh, Jharkhand, Orissa and Kerala. (BUSINESS STANDARD 011004)

Project for integrated development An ambitious Rs 1.03 B project is being formulated for the integrated development of areas falling under Shivalik Development Board, which shall soon be presented to the international fund for agriculture development, Rome for funding. (THE TRIBUNE 061004)

FOODGRAINS MANAGEMENT

Starvation deaths in Jharkhand Six persons have died in Jharkhand due to starvation. The govt says the deaths have occurred due to malnutrition and not due to starvation. Adivasi families in Garhwa, Palamu and Hazaribag are surviving under extreme poverty and recently several men and women from these districts have died due to starvation. Earlier in Nov '03, the Supreme Court had directed the state govt after starvation deaths and Mr N C Saxena had been appointed as Food Commissioner to look into this issue. Mr Saxena submitted his report but the state has not implemented any of the recommendations. (RASHTRIYA SAHARA 010904)

Integrated food law being planned The Ministry of Food Processing plans to introduce a unified food law with a single regulatory authority. Now, eight Central

Ministries handle 14 sets of laws, which are enforced and regulated by a number of agencies. "Different states have different laws for contract farming and cooperative farming. So the idea is to find out how best the produce can reach from the farmer to the factory and how much we can sustain our farmer," said Union Minister of state for Food Processing. (THE HINDU 020804)

Rice meant for food for work, goes missing Scam involving misappropriation of the hundreds tonnes of rice meant for distribution under food-for-work programme has been unearthed in 10 districts of Chhattisgarh. The rice did not reach the beneficiaries as transporters and Govt officials worked hand in glove with cooperative societies to make a fast buck. The scam has caused a loss of over Rs 80 M. In Kawardh & Korba, 1800 T rice worth Rs 10 M has gone missing from PDS outlets. In some districts, the rice did not even reach the PDS outlets. (THE INDIAN EXPRESS 030904)

SUGAR

Sugar for export lands in local markets The central govt's nod to import raw sugar under the advance licence scheme for eventual re-export has created a piquant situation. Importers brought 0.65 MT and diverted it to the domestic market. This has led to the central govt suffering a revenue loss of Rs 4 B. Imports under the ALS lead to the waiving of 60% import duty and the counter veiling duty of Rs 850 per T. (THE ECONOMIC TIMES 121104)

Marginal rise in MSP The Union Govt has approved a marginal increase in the statutory minimum price for sugarcane at Rs 745 per T for 2004-5 (linked to basic recovery of 8.5%) from Rs 730 a T in 2003-4 on the recommendation of the Commission for Agriculture costs and prices. (THE TRIBUNE 121104)

Sugar buffer stock period extended The Cabinet Committee on Economic Affairs has given its ex-post-facto approval for extending the period of maintenance of 2 MT sugar as buffer stock for a year beyond Dec 17 '03. The buffer subsidy from the Sugar Development Fund and the additional credit from the banks received by the sugar mills shall be utilised for payment of cane price dues to the sugarcane growers. (THE HINDU 151004)

AP Cooperative sugar mills to be revived The Andhra Pradesh Govt will infuse Rs 2.5 B to revive 10 sugar mills in the cooperative sector to thwart cartelisation by private sugar mill owners. The centre will provide the money. (THE HINDU 090804)

UP's new sugar policy The Uttar Pradesh has declared a new sugar policy to revive the industry and to benefit the over 1.2 M sugarcane growers. The growers would receive a subsidy of Rs 1 per quintal on transportation of their produce to mills up to 50 km. The Govt has also given 5-year concession to the industry for investing Rs 3.5 B - 4.99 B and doubling the

concession if it was beyond Rs 5 B. Tax subsidy of Rs 14.57 per quintal would also be given to farmers. The State has targeted to produce over 7.5 MT up to 2010. At present there are 101 sugar mills, while 52 are in private sector. (BUSINESS LINE, RASHTRIYA SAHARA 260804)

SC rejects UP sugar mills plea The Supreme Court refused to admit a plea by private mills to review its decision that the UP Govt can rightfully announce a state-advised cane price every year and ensure that local mills pay up. According to the UP Sugar Mills Association, private mills have Rs 7 B liability for 2002-3 and 2003-4. (THE ECONOMIC TIMES 060904)

Haryana sugarcane bill The Punjab Sugarcane (regulation of Purchase and Supply), Haryana Amendment Bill, 2004, which is awaiting assent from the Govt to become an Act, will bring parity in cane prices being paid by co-operative mills. The private mills, which have been paying the farmers at the rate of statutory minimum price fixed by the Central Govt, will have to pay the State Advised Price once the Act is notified. The SAP was Rs 1040, Rs 1060 and Rs 1100 per T for different varieties last year. The SMP was Rs 695 per T over the previous year, it still remained substantially lower than the SAP. (THE TRIBUNE 071004)

Uttaranchal raises SAP The state gov't has declared a higher interim State Advisory Price of Rs 1050 per T of sugar cane for 2004-5 up from Rs 950 per T in 2003-4. Last year the total sugarcane production was 7.17 MT while in 2002-3 it was 7.5 MT. (BUSINESS LINE 191004)

EU subsidies for sugar illegal The European Union's regime for subsidising sugar farmers has been declared illegal by the WTO in a landmark ruling that will severely curtail dumping of excess production on global markets. EU measures had affected the livelihood of farmers in rest of the world by breaching agreed limits on financial support for exported sugar. The interim ruling by the WTO's disputes panel found that the EU was exporting four times the permitted amount of subsidised sugar, depressing world prices and costing Brazil, Thailand and Australia in the process. (BUSINESS LINE 060804)

FARMERS' SUICIDE

Reasons behind farmers' suicides According to Hyderabad based Centre for Economic and Social Studies, the current agrarian crisis in India has more to do with the viability of agriculture sector itself, the consequence of prolonged neglect. In their study titled farmer's suicides: Looking beyond the debt trap, the economists said that farmers' suicides could not be brushed aside as an event associated with drought or other natural disasters. A number of technological, ecological, socio-cultural and policy related factors are responsible for the current agrarian crisis. According to the study, the incidence of suicides by farmers across the country points towards a brewing agrarian crisis

during the past decade. "Agriculture is becoming increasingly unviable irrespective of rainfall pattern. The contribution of agriculture is declining at faster pace than the population depending upon it. The decline is much sharper in per capita terms. Such a crisis was avoided during the 60s with the advent of green revolution technology. No such technology, especially for drylands, is visible on the horizon at present." The main fall out of this technological deadlock is the increase in input intensity to maintain productivity levels in degraded and marginal lands. According to study, ecological exigencies leading to farm distress are mostly induced rather than natural rainfall analysis during the last 100 years, especially in drought prone areas, shows little variation in quantity and pattern. Ecological factors include mainly the declining quality of land and water resources. (BUSINESS LINE 111004)

Karnataka The gov't has admitted that there was a 14-fold increase in the number of suicides by farmers in 2003-4 (708) compared with that 2002-3 (52). In 2001-2 81 farmers committed suicide. The Minister for Agriculture said that as against the total number of 841 cases of suicides in 2001-04, compensation (of Rs 19.8 M) had been paid to the families in 225 cases.

➤ The number of suicides by farmers in Hassan district 92 since April 2003. This is said to be highest in the state. (THE HINDU 050804, 011104, HINDUSTAN 011104)

AP 5 farmers including two women committed suicide due to failure of crops and increasing debts in Karimnagar Dist on Aug 13. (THE HINDU 130804, RASHTRIYA SAHARA 060904)

Gujarat Mangal Das Solanki, a farmer, ended his life in Garadia village in Vadodara district by consuming pesticides. He had taken a bank loan of Rs 0.15 M for cultivation. Another farmer, Ranjan Parmar of Indrapuri of Vadodara committed suicide. He had taken a loan of Rs 70 000 for sowing, but due to excessive rain, the seeds were washed away and he could not repay the debt. (THE HINDU 060904, 130904)

Orissa A debt-ridden farmer, Kishore Gupta, at Raigarh has ended his life. Last year he had taken Rs 25000 from two banks and Rs 5000 advance from sugar mill agent for sugarcane cultivation. He used to cultivate sugarcane in his four acres. (DANIK BHASKAR 040904)

Punjab In a status report "Suicides by farmers in Punjab", the Govt has admitted that from 1988 to date 2116 cases of suicide were reported in Punjab. 70% of the victims were small of marginal farmers. Beginning with late 80s, when 95 suicide cases were reported in 1988, the suicide rate shot up in 1990 and the situation became alarming in 1997, when 418 incidents were reported. "During 1999-2003, 39 cases came to light. The increase in suicides was moderate between 1991 and 1992. However it registered in steep rise from 1993 onwards. The suicides cases were reported more from

the Malwa region – Sangrur, Bhatinda, Ferozpur, Mansa and Faridkot districts – and from the border districts of Gurudaspur and Amritsar. In fact, Sangrur, Bhatinda, Mansa, Amritsar, Ferozpur and Girudaspur districts account for 72% of the total suicides committed in Punjab between 1988 and 1997. Sangrur alone accounts for 44% of the total suicides in the state. Of the victims, 20% were engaged in cultivation of wheat and cotton and 65% in cultivation of wheat and paddy. The report states that “the growth rate of nearly 5% per annum, achieved by the state agriculture sector at the beginning of the green revolution in the mid sixties, has been declining. From 6.63%, the compound rate of growth per annum in the sixties, the growth rate has been less than 3% per annum. This is less than the all-India average. The burden of debt is high on the small and marginal farmers and the debt liability of small and marginal farmers is 21.5% of the total debt. One of the studies carried out by AFDR states, “suicide victims were on an average four times more under debt when compared to the general population”. The total outstanding loan in the agriculture sector in Punjab from commercial and co-operative institutions as on March 31, 2004 was Rs 93.141 B.

➤ **Tractor causes suicides?** According to a study by Punjab Agricultural University, several small farmers in Punjab have committed suicide because of inability to repay loans taken for tractors. Though Punjab accounts for only 2.5% of the country's area under cultivation, it has 25% of the country's tractors. The average tractor density in Punjab and Haryana is 95 per 1000 Ha as against the national average of 12 and international average of 50-60. N India has 54% of all tractors, followed by the W India 23%, S India 16% and E India 7%. (TEHALKA 231004, Down To Earth 311004)

POWER SECTOR

Power Ministry not utilising allocated budget The Parliamentary Committee on Energy has accused the Power Ministry of not fully utilising the money allocated to it during last two years. "The actual utilisation of funds during 2003-4 was Rs 107.41 B and the Ministry surrendered Rs 39.27 B compared to the budgetary estimate of Rs 146.68 B." During 2002-3, the Ministry had surrendered Rs 48.34 B against the budgeted outlay of Rs 134.83 B. The Power Ministry said that the NHPC and NEEPCO were responsible for not utilising the allocated money. Further, the committee noted the Power Ministry plan outlays during the two years, were reduced at the Revised Estimate stage. Plan outlays during 2003-4 were Rs 146.68 B, which was, reduced to Rs 120.38 B at the RE stage. In the previous fiscal, the outlay was reduced from Rs 134.83 B to Rs 112.69 B, even this reduced amount could not be utilised and the ministry spent Rs 86.49 B only. (PTI 300804)

Plan panel rejects NEP draft The Planning Commission has trashed the Draft National Electricity Policy's estimates that envisages an investment of Rs

9000 B in power sector. The Planning Commission said in its comment on the draft NEP, “in fact there is no talk of ‘optimal utilisation’ of energy resources in the draft policy document”. The document, which includes considerable material that does not typically belong to a policy statement, requires major redrafting. Given the current levels of household consumption, 15-20% expansion of generation, transmission and distribution system can do the trick. Household access does not need a massive addition to generation capacity and expansion in T&D network. The estimates quoted are erroneous since the very base used for arriving at these estimates is flawed. The policy has plans to take up 50 000 MW HEPs. A substantial portion of this huge potential is confined to N and NE states where past experience has not been encouraging due to various reasons, unique to the regions. The rural electrification section must include policy guidelines related to local level institutions needed to deliver a viable programme, use of available local resources, participation of beneficiaries, demand driven programmes as opposed to supply driven solutions, integration of electricity into rural energy solutions. (THE INDIAN EXPRESS 210904, THE HINDUSTAN TIMES 230904)

Draft norms for tariff-based PPA The Central Electricity Regulatory Authority has drawn up draft guidelines for long-term power purchase contracts on the basis of tariff based competitive bidding. Under the Electricity Act 2003, the Central Govt has mandate to issue such guidelines and the CERC is supposed to advise the Govt on promoting competition, efficiency and economy in the power sector. The draft guidelines provide for purchasing power on a long-term basis for blocks of capacity without specifying type of source of generation or for entire project capacity of blocks of capacity of thermal generation or hydro generation. The guidelines also say that the procuring agency may be the distribution licensee, the SEBs or their successor entities, state govts, electricity depts and trading licensee individually or as a consortium. In case of inter state projects, the Central Govt may also take initiative to constitute the procuring agency in consultation with the State Govt, the Central Electricity Authority, Central Transmission utility and other stakeholders. The states may also undertake similar initiatives. (THE HINDU 051004)

Task force to study splitting PGCIL The Power Ministry is considering setting up a task force to study hiving off Power Grid Corp system operation functions from its transmission functions. PGCIL currently handles transmission and also the five Regional Load Dispatch Centres, which are responsible for operation and control of the bulk power system. The Electricity Act has left the separating of these two operations open ended. With the private players allowed to lay transmission lines, PGCIL gets an unfair advantage as operator of the load dispatch centres and owner of transmission lines. (BUSINESS STANDARD 121104)

Haryana plans uniform power tariff The Haryana Cabinet has decided to introduce a uniform rate of tariff for both metered and unmetered agriculture connections. Due to the withdrawing of the slab system farmers would get relief of Rs 1.38 B. In case of metered category, there would be a uniform rate of 25 paise per unit for all the four levels for the depths of tubewells (100 ft, 101 -150 ft, 151-200 ft and above 200 ft). For unmetered tubewells, there would be a uniform rate of Rs 35 per BHP per month. The govt had constituted a high-powered committee under the chairmanship of Finance Minister in March 2002, to review the slab system of agriculture tariff. The committee observed that the water table had gone down in most areas. The Haryana Power Distribution Corp has issued the order of revision of tariff. Earlier, the metered tubewell owners were paying 38-65 paise per unit and un-metered tubewells owners were paying Rs 48-104 per BHP per month, as per slabs on the basis of depth. The monthly charges had also been reduced to Rs 200 per BHP per year, which were earlier Rs 500 per BHP per year.

➤ **New power plant** The Haryana cabinet approved the decision of the special High Powered Purchase Committee to set up a 2X300 MW Thermal Power Plant at Yamunanagar by Reliance Energy on a turn-key basis. The Plant is being set up by the Haryana Power Generation Corp at a Greenfield site. It would be set up at negotiated lump-sum price of Rs 20.97 B. (THE TRIBUNE 080904, THE HINDU 011004, BUSINESS LINE 081004)

Chhattisgarh: Increasing T&D losses Due to increasing T&D losses, the loss of Chhattisgarh SEB is increasing. At present the average T&D loss is 30-32 %. The annual T&D loss has gone up to Rs 7 B in 2003-4, while it was Rs 5.5 B in 2002-3 and Rs 4.6 B in 2001-2. The average daily power demand is 1500 MW. As per CSEB 22% loss is ideal. (DANAIAK BHASKAR 200904)

Power tariff raised in UP The power tariff in Uttar Pradesh has been raised by 2.7% by the SERC for 2004-5. The UP Power Corp had urged the regulatory commission to hike the power tariff by at least 8%. Domestic consumer will be paying 3.2% more, while the tariff for commercial purpose will increase by 0.4%, and for big units 0.9%. The small and medium units would be charged 4.9% more. (BUSINESS STANDARD 121104)

Rajasthan power tariff The Rajasthan Electricity Regulatory Commission has announced 'generation station' tariff for supply of power by State power generation corp to three distribution companies. The RERC allowed power generation corp to charge Rs 1.2998, Rs 1.6236 and Rs 1.5346 per unit respectively for electricity generated from Kota thermal, Suratgarh Thermal and Ramgarh gas power stations. The overall tariff for all generating stations, including the mini micro HEPs allowed by the commission would come to Rs 2.07 per unit against Rs 2.29 per unit demanded by the generation corp. (BUSINESS LINE 131004)

Kahalgaon transmission project gets nod The Cabinet Committee on Economic Affairs has approved the Rs 17.719 B 1462 km transmission system for the 1000 MW Kahalgaon-II project in Bihar for disbursement of power to E, W and N. (BUSINESS LINE 300904)

JK Power arrears Rs 10 B The malpractice in recovery of electricity tariff in Jammu and Kashmir has resulted in the arrears of over Rs 10 B. Over 1 M illegal electricity connections have been detected. Arrears of over Rs 5 B are standing against at least 70 depts, including various units of the Power Development Dept. While Rs 1.181 B was recovered from consumers in the Kashmir valley for 3 441.13 MU of electricity supplied last year, the recovery was Rs 2.049 B in Jammu for 2839.24 MU. (THE TRIBUNE 241004)

Subsidy for rural projects The finance ministry, which had earlier opposed the move, has now agreed to support the MoP proposal to hike capital subsidy for the rural electrification programme to 90% from 40% subject to certain conditions. The objections raised by the finance ministry and Planning Commission are on grounds that with a large subsidy element, developers could inflate cost estimates and get the govt to pay for the entire project cost. The Planning Commission had asked the power ministry to work out a revenue model before hiking the subsidy limit. The power ministry had also made a pitch for \$1 B or Rs 45 B from the WB during the India visit of WB president. 56% of rural households are yet to be electrified. The Rs 160 B programme aims to electrify all rural households over five years. (BUSINESS STANDARD 231104)

POWER PRIVATISATION

License fee in transmission The CERC has proposed 0.1% of the transmission charges (after commissioning) subject to a minimum and maximum of Rs 0.1 M and Rs 10 M as the annual license fee for private companies entering the inter-state transmission business. The license fee for the construction period shall be Rs 0.1 M. The transmission charges will be fixed by CERC unless the project is awarded through a bidding process in line with the Centre's guidelines. A license will be valid for 25 years. The 31 000 circle km national grid is estimated to cost over Rs 710 B and is proposed to be funded through multilateral loans and debt raised by the Power Grid Corp. (BUSINESS STANDARD 040904)

Haryana power policy The PHD Chamber of Commerce & Industry has urged the Haryana govt to formulate a comprehensive power policy, outlining the roadmap for privatisation. The power policy should make provision that unutilised captive capacity is supported by purchase of power. The state has huge under utilized potential for captive power generation. Its agriculture also has tremendous scope for cogeneration. (THE TRIBUNE 080904)

MP Power reform The Madhya Pradesh Cabinet has approved the ADB funded Rs 8.8 B power reforms project to strengthen and upgrade the transmission, sub-transmission and distribution system. The ADB loan has been received through the Central Govt, in which 30% grant would be given to MPSEB.

➤ **Wartsila plans** Wartsila India has proposed setting up two power plants in MP: in Malanpur (60 MW) and Pithampur (120 MW). Wartsila India, the Indian arm of the Finland multinational, is a leader in medium speed diesel engines & gas engines for captive & marine use.

➤ **Reliance plans** The Reliance Industries plans to set up a Rs 20 B pit-head methane based power plant in MP for 1000-1200 MW. (DANIK BHASKAR 300904, BUSINESS STANDARD 041004, 151104, 161104)

CAG questions transparency in privatisation in Delhi The CAG in its report for 2002-3 has indicated that the Delhi suffered a loss of over Rs 60 B due to decision made during the unbundling of the Delhi Vidyut Board. The CAG raised questions on transparency in power reforms and said, "substantial modifications" in the transfer scheme, while "benefiting" the privately managed discoms, put "additional financial burden" on the Delhi Govt and the State owned Delhi Transco. Pulling up the Govt for making significant changes in the transfer scheme without approval of the competent authority (Lieutenant Governor), the CAG asked the Delhi Govt to obtain post facto approval to the modifications. The enhancement of moratorium period for 3-5 years would only result in depriving the Holding Company of interest amounting to Rs 3.398 B, which would have accrued after the third year. Moreover, it enables utilisation of the loan amount of Rs 14.16 B for two additional years. The CAG observed that the requirements and scope of the work were not defined prior to the selection and appointment of the consultants. "Hence, all offers could not be evaluated on a transparent basis", it said. While the details of the calculations were only available with the consultant, the CAG said, "while the general methodology had been explained, the basic figures adopted, weightages given and assumptions made were not indicated and hence the basis of final figures of Rs 31.6 B could not be verified. The govt evidently relied solely on the report of the consultant." The CAG concluded that the dilution of the targets of reduction of the aggregate technical and commercial loss from the envisaged in request for proposal and adverse impact on the tariff "would deprive the Transco of the accrual of Rs 39.29 B". (THE TIMES OF INDIA, THE HINDU 050804)

UP Power Corp begins divestment The Uttar Pradesh Power Corp went for major disinvestment of the distribution sector inviting private entrepreneurs to bid for the five distribution companies within the a month. The Govt in its invitation said as a part of the Power Policy 2003, it intended to disinvest majority stake in electricity distribution. The key objective was to bring expertise, management skills and resources to improve

efficiencies, reliability and availability of power. The private power companies bidding for the distribution companies should have a net worth over Rs 5 B or an equivalent foreign currency and it should also have an experience of owning and operating generation plant of over 500 MW. (BUSINESS LINE 021104)

POWER GENERATION

Tata: Maharashtra Plant gets clearance The Tata Power has received all the clearances from the environment dept for setting up a 2X500 MW Rs 40 B plant in Ville, near Bhivpuri lake in Raigad District in Maharashtra to be completed by 2007-8.

➤ **2000 MW plant in UP** Tata Power is finalising its plans to set up a coal based Rs 80 B 2000 MW plant in Sonebhadra dist in Uttar Pradesh (40% share in power generated). The project is to be taken up in two equal capacity phases. (BUSINESS STANDARD 180804, THE TIMES OF INDIA 151004)

New project in Delhi The Delhi govt has approved the proposal to set up a 1000 MW gas based power project at Bawana to be executed in the private sector through competitive bidding and approved the appointment of consultants for the same. (THE HINDU 070904)

Railways captive power plant Indian Railways, in collaboration with the National Thermal Power Corp (with 51:49 equity) will set up a Rs 43 B 1 000 MW joint venture thermal power plant. The JV company named 'rail bijlee company' is to be set up at Nabinagar in Bihar for traction requirement of IR. (Daily Excelsior 091104)

POWER FINANCE

WB aid The total development assistance from the World Bank to India would be \$2.5 B during 2004-5. WB's country director said that major projects in power sector are under discussion. Power Grid Corp, NHPC and NHAJ would be among the major beneficiaries of WB assistance in the near term. The WB is working on a \$ 300-500 M loan to Power Grid for a national power transmission system. (THE ECONOMIC TIMES 230904)

Loan for Baglihar The J&K govt has decided to lift a term loan of Rs 12.5 B from FIs for the 450 MW Baglihar HEP. The Power development Corp would take loan of Rs 4 B from Rural Electrification Corp, Rs 3 B from HUDCO and Rs 5.5 B from J&K Bank and other banks. The financial closure of the Rs 40 B Baglihar HEP has been finalised, with the Centre agreeing to provide Rs 6.3 B as additional assistance. Rs 18.5 B is to be arranged as loan from FIs and the rest to be provided by J&K as its equity. (BUSINESS LINE 020904)

Tata Power Tata Power, the country's largest private sector power producer with an installed generation capacity of 2278 MW, has raised Rs 6 B through a private placement of debentures at a yield to maturity of 7.1%. (BUSINESS STANDARD 131004)

Nod for 94 power reforms projects An additional 194 power projects, costing Rs 10.141 B have been approved under the Accelerated Power Development Reforms Programme in the current fiscal. This takes the total number of approved projects under the investment component of the programme to 504. Of the total cost of Rs 176.24 B, the MoP has released 41.12 B so far along with the counter part funding of 62.34 B. Of this 44.14 B has been utilised till Sept '04. Under incentive component, MoP gives 50% of actual cash loss reduction by SEBs/ utilities as grant. The cash losses are calculated net of subsidy and receivables. Under the scheme, the MoP has released 2.66 B to AP, 2.36 B to Gujarat, 1.05 B to Haryana, 1.28 B to Maharashtra and 1.38 B to Rajasthan. MoP claims that gap between the average cost of supply and the average revenue realised has come down from Rs 1.1 per unit in 2001-2 to Rs 9.63 in 2002-3. The T&D losses have come down from 33.98% to 32.54%.

➤ The MoP has allocated Rs 14.37 B for 99 projects in 14 states under the investment component of the Accelerated Power Development and Reform programme to encourage the states to curb T&D losses. UP had received the highest allocation of Rs 3.24 B this fiscal. J&K has been allocated Rs 2.412 B, Meghalaya Rs 1.396 B, Manipur Rs 1.338 B, Kerala Rs 1.239 B, Tripura Rs 803.8 M, Bihar (Rs 634.4 M), Goa (Rs 578 M), Gujarat (754.6 M), Maharashtra (381.7 M), Punjab (Rs 348 M), Karnataka (Rs 316 M), Mizoram (Rs 533.7 M) and Rajasthan (Rs 390.8 M). (BUSINESS STANDARD 251004, 301004)

Power Grid pact with Dutch firm Power Grid Corp has signed a MoU with ECC Kema, a Netherlands firm, to bid a jointly for international projects. The company is also mulling making an initial public offering in 2005. With a domestic investment target of Rs 710 B by 2012, the PGCIL is negotiating for loans grossing about \$2 B from WB and ADB. Of the targeted Rs 710 B, the PGCIL will have to independently raise Rs 510 B, with Rs 200 B earmarked to be brought through private participation. (BUSINESS STANDARD 141004)

POWER OPTIONS

Renewable energy in India Currently renewable energy contributes about 5000 MW, representing 4.5% of the total installed capacity. By March '04, wind power accounts for 2483 MW, biomass power accounts for 613 MW and small hydros, 1603 MW. Biogas and solar lighting have reached 3.5 M and 1 M households respectively. An additional 4000 MW of power from renewable sources is to be added during the Tenth Plan (2000-7). The country has set a goal of elevating the share of renewable energy in power generation to 10% by 2012. In addition, electrification of all remote villages through renewable energy by 2007 and all households in such villages by 2012 have been planned.

➤ **Wind** India is now the fifth largest windpower-producing nation after Germany, USA, Spain and

Denmark. The gross wind energy potential is estimated at 45 000 MW. The capital cost of wind energy projects is Rs 40-45 M per MW. The cost of power generation is Rs 2-2.5 per KWh. States with high wind power potential are TN, Maharashtra, Gujarat, AP, Karnataka, Kerala, Rajasthan and MP.

➤ **Biogas** Some 3.65 M biogas plants have been installed till March 31, 2004, which is over one-fourth of the estimated potential of 12 M plants.

➤ **Small Hydros** It has a database of over 4000 potential sites with a total capacity of 10071 MW for projects upto 25 MW. So far, around 500 SHPs have been installed. 158 projects with a total capacity of 454 MW are under various stages of implementation.

➤ **Biomass Power** Currently, biomass contributes 15% of the total energy supply worldwide and 40% of this energy is consumed in developing countries, mostly in the rural and traditional sectors. Fuel wood (200-300 MT), animal waste (80-100 MT) and crop residues (100-120 MT) annually are consumed as the main biomass fuels. Official estimates reveal that with an investment of Rs 2 M, the energy needs of 100 households of a village can be fully met. The Govt is planning a programme that would cover around 25,000 remote villages and 175 000 forest fringe villages. The programme would generate employment opportunities for at least 25 persons per village.

➤ **Solar Energy** Today India has the largest decentralized solar energy programme in the world. Solar photovoltaics systems have found applications in house holds, agriculture, telecommunications, defence and railways. About 151 MW stand-alone SPV systems have been installed including export of 75 MW capacity systems. (PIB PR 061004)

Rajasthan policy The Rajasthan Govt has announced a new policy to encourage non-conventional energy sources, empowering the public sector power distribution companies to purchase 400 MW generated by wind energy against the ceiling of 350 MW imposed earlier. The power companies will purchase 250 MW wind energy from the projects having invested 50% of stipulated cost at the rate of 3.39 per unit and the rest at the rate of Rs 2.991 per unit under the new policy. The CM hoped that Rs 6 B would be invested in the non-conventional energy sector this year, benefiting mainly the desert districts in W. Investment of Rs 8 B had been made so far in the sector. The registration fee for establishing a new project has been doubled Rs 50000. The wind power units will construct pooling stations for which the investors will have to deposit Rs 0.2 M per MW production with the power companies to avail the facility of interconnection. (THE HINDU 271004)

SHPs in Himalayan states A study by Gol with assistance from UNDP-GEF, for the 13 Himalayan and sub-Himalayan states, has identified 2162 small HEP sites with 3827 MW potential (each project up to 3 MW). In addition, there are a large number of sites for low-

head schemes, with potential of 3-5 MW each, which are yet to be investigated. It is estimated that about 4120 sites are available for SHP development through local resources. The projects on these sites have a rural employment potential of about 0.4 M man-years during construction and direct and indirect employment of 25 000 and 50 000 persons respectively, in operation and maintenance on a regular basis. However, present plans are not based on any rigorous and analytically meaningful appraisal of resources and capabilities and involvement of local population. That is why the progress so far has been slow. For example, out of 32 projects offered by the HP govt to private sector since 1996, only 2 SHPs could be commissioned by 2003. (THE FINANCIAL EXPRESS 291004)

AP to help tribals build mini HEPs Andhra Pradesh will assist tribals to establish 10 mini HEPs, each of one MW capacity. They will come up in Rampachodavaram (4), Paderu (3), Bhadrachalam (2) and Utnoor (1). Of the total investment of Rs 690 M, the Centre would give Rs 328 M as subsidy while 25% will be advanced as loan by banks and the rest as interest free loans through Velugu project. (THE NEW INDIAN EXPRESS 261004)

Uttaranchal SHPs The govt has commissioned three SHPs: Railgad (3 MW) in Pithogharh dist, Pilangad (2.25 MW) in Uttarkashi dist & Badrinath (1.25 MW) in Chamoli dist. Work has started for Ariganga-1 (4.5 MW) and Ariganga-II (3 MW). The State is trying to start these SHPs with ADB funds: Kaliganga-1 (4.6 MW), Kaliganga-II (6 MW) and Madhyamaheswar (5.6 MW) in Rudraprayag dist, Bhilangana-II (4.5 MW) in Tehri dist, Kaldigad (6 MW) in Uttarkashi and Tankul (7.8 MW) in Pitoragarh dist. Bhilangana-III (8.4 MW) is private sector. (THE HINDUSTAN TIMES 091104)

Demand for probe in HP SHPs The opposition party of HP has alleged irregularities in the allotment of work for the mini and micro HEP and demanded that the govt should order a probe. The work for 900 KW Saach HEP in Pangi had been given to contractor who didn't have the required machinery & expertise. (THE TRIBUNE 301104)

Wind-farm coming up in Kutch NEG Micon is setting up a Rs 11.25 B 250 MW wind project over the next two years at Surajbari in Kutch district. NEG has already invested Rs 300 M and the first 50 MW will be commissioned by March '05. NEG has installed its largest and latest wind turbine unit, which has the installed capacity of 1.65 MW. Though having the largest potential Gujarat has lagged behind TN and Maharashtra in setting up wind projects. Gujarat's known potential is 7000 MW, 200-250 MW have been installed so far. TN has an installed base of 1000 MW as against known potential of 4000 MW. Maharashtra has installed capacity of 450 MW as against a potential of 3000 MW. As wind velocity in Gujarat is lower than that in TN, the per unit power generation cost is higher. (THE TIMES OF INDIA 091104)

China to push wind energy The Greenpeace, the European Wind Energy Association and the Chinese Renewable Energy Industry Association have formed a partnership, committing themselves to ensuring that wind power plays a key role in China. Increased global temperatures threaten to significantly reduce the country's rice production, and over 60% of Chinese glaciers are anticipated to disappear by 2050, threatening the fresh water supply for over 250 M. As per Greenpeace, the only long term sustainable solution to China's energy crisis is through the massive uptake of renewable energy from wind, solar, micro-hydro, modern biomass and geothermal power. The Govt has set a target to meet 12% of its power generation capacity from renewables by 2020. A significant share of this new capacity will come from wind. In May 2004, the three groups launched the report 'Wind Force 12 - China', an industry scenario, which showed that by 2020 China is capable of installing 170 GW of wind power, delivering annual savings of 325 MT of CO2 and creating hundreds of thousands of jobs. (commondreams.org 150904)

China SHP China's Ministry of Water Resources says small HEPs have developed rapidly in recent years, boosting generating capacity especially in rural areas. In China, SHPs refer installed capacity under 50 MW. The ministry notes SHPs now supply power for 500 million rural people. By the end of last year, SHPs had contributed over 30 000 MW. (People's Daily 201004)

Pico Hydro grid in Vietnam The mountainous Da Bac province outside Hanoi, is home to the Muong indigenous ethnic group. Many are rice farmers and few can afford the electricity from the grid. Instead, they are turning to a low-priced alternative. Pico Hydro is a small-scale version of conventional hydropower. The streams at the bottom of the valleys are powering a low-tech grid for the people of Da Bac. Pico Hydro units need only a constant water supply and a slope with a 1 m drop. This produces a flow rate that can drive a turbine fast enough to generate electricity, providing houses with a direct power supply. In some villages nearly every household has one. Imported 300 W turbines cost about \$20, and have proved to be the most popular. (BBC WORLD 281104)

ENRON SAGA

GE threat US-based GE, a majority shareholder of DPC, had threatened to leave the negotiation along with Bechtel and seek legal recourse for their claims of \$12 B from India. GE and Bechtel have initiated arbitration proceedings in London, claiming \$ 6 B for lost profits plus an indemnity for any third party liabilities under the Mauritius India Bilateral Investment Treaty. They have also initiated ICC arbitration in New York against the Maharashtra Govt for \$ 6 B, claiming wilful breaches of the shareholder agreement and other misconduct. The threat is a result of the lack of progress in negotiations with the Centre. (THE INDIAN EXPRESS 181004)

DPC revival to cost Rs 18 B The Finance Ministry has estimated that Rs 18 B would be needed to restart the DPC, lying idle for 3 years. This is to complete the LNG plant, phase-II of the project and payment of contractual charges of GE and Bechtel, the ministry of finance said to MoP. The finance ministry has estimated that it would take 18 months to complete all these before the power generation can begin. (BUSINESS STANDARD 191004)

GoM asks NTPC to bail out DPC The group of ministers has proposed that the NTPC acquire the equity holdings of GE and Bechtel in DPC and that the Gas Authority of India take-over the 5 MT LNG gas terminal adjacent to the plant. (THE TIMES OF INDIA 201104)

OPIC arbitration notice to GOI The US Govt promoted Overseas Private investment Corp has initiated arbitration against the Gol for breach of Investment Incentive Agreement and the recovery of its claims of \$110 M. OPIC has paid over \$110 M on political risk insurance policies covering the investors and Bank of America against the risk expropriation of their investment in DPC. OPIC has asked the Gol to reimburse these payments or compensate to the fullest extent. (THE INDIAN EXPRESS 201104)

SOUTH ASIA

Pakistan Gomal Zam Dam work suspended Chinese engineers working on the Gomal Dam in S Waziristan have suspended operations until Pakistan provides them with better security, as a result of the recent killing of a Chinese engineer in a militant kidnapping. Chinese engineers Wang Peng and Wang Ende, both employees of state-owned Chinese firm Sino-Hydro Corp, were heading to work on the Gomal Zam dam project, about 330 km SW of Islamabad, when they were abducted on Oct 9. (Daily Times- Pakistan 191004)

Govt to change KBD designs The Pak govt has decided to change the design of the proposed Kalabagh Dam and not build a canal from the reservoir to Punjab to make the project more palatable to Sindh and reduce the height by 10 ft to satisfy NWFP. The govt has sought a report from Punjab with reference to its views on the dam, which is now likely to be a carry-over dam. A power plant would be built at Kalabagh and Punjab would be entitled to royalties from it. (Daily Times 281004)

WB wants progress on Dams World Bank and ADB have urged Pakistan to accelerate the pace of building political consensus on the Kalabagh or Bhasha dam. The monetary institutions praised the govt's decision on expeditious preparation of a feasibility report on the Kalabagh Dam and called it a significant movement towards the resolution of the Kalabagh controversy. A British company named Panni and Partner, in collaboration with the WB, had worked out a feasibility report of the Kalabagh Dam in 1985 and had handed it over to the WAPDA. (Daily Times 251004)

Baglihar President and Prime Minister have been asked by an inter-ministerial meeting to ask the WB for neutral experts to arbitrate in Indo-Pak dispute over the Baglihar HEP. Pakistan says that the 450 MW HEP India is building on the Chenab violates the 1960 Indus Water Treaty, of which the WB is the guarantor, and will divert a daily average of 7,000 cusecs of water meant for Pakistan. India denies that Baglihar violates the treaty. An inter-ministerial meeting unanimously decided to request President to use all channels to stop India from building the project, as Pakistan could no more expect a bilateral solution. (ANI PR, DAWN 221004)

Crack in Sukkar Barrage A crack has been developed in the 80-year-old Sukkur barrage situated at the border with India near Rajasthan's Jaisalmer dist. The Pakistani experts have raised concern that if the dam bursts it will create heavy losses. The crack was developed in 2002 and that time authorities did not take this matter seriously. Sindh has informed the federal govt that if the Sukkur Barrage is not repaired immediately, huge losses will occur to infrastructure, crops and human lives in the province. At present the crack is 80 ft long, 120 ft wide and 19 ft deep and is widening day by day. According to an official report the crack has been developed due to heavy siltation in dam and obstructed flow of river. The capacity of the dam is now reduced. On request of Sindh Pak govt has started to repair the dam. (RASHTRIYA SAHARA 191104)

Work to begin on Neelum-Jhelum Pak has decided to start work on 960 MW Rs 87 B Neelum-Jhelum HEP in Azad Kashmir on war footing to maintain its priority rights over the Jhelum River. (DAWN 251104)

Nepal New Site for Pancheswar A new venue has been chosen for the 5600 MW Pancheswar HEP in Nepal, to come up on the Sharda river, to minimise submergence and displacement of people. Rupaligarh is located more downstream than Purnagiri, the original venue, which would mean less power generation but faster clearance of the project. This decision was taken at meeting of the Indo-Nepal Joint Committee on Water Resources. It was also decided that the power generated would be shared on a 50:50 basis. The two countries were unable to arrive at even the parameters for the DPR, it has now been decided that a team of experts from both countries would submit a report by Jan '05 to resolve minor differences. Representatives from UP, Bihar and Uttaranchal govts were also present. (THE INDIAN EXPRESS 091004)

Mid-Marsyangdi works resume After over two months of uncertainty, the work for the 70 MW Middle Marsyangdi HEP resumed in late Oct. Suspension of the works had been a major concern for Nepal Electricity Authority as it was costing the NEA Rs 2 M daily on cost overruns. The variation cost claimed by the contractor for delays has crossed 60 M euros, including the four months of suspension between Oct 6,

'03 and Feb 8, '04. The total contract bid is 74 M euros. The Rs 14-B HEP is the second largest ongoing project in Nepal after Melamchi Water Project. The HEP is funded by the govt of Nepal, NEA and KfW, the German Development Bank. Started in 2001, the project is now expected to complete in 2006, a year behind schedule.

➤ The German govt is likely to pump additional 30 M euros into the HEP. In the first phase, 9 M euros is arriving. Negotiations are going on for the remaining 21 M euros. Nepal govt has conceded rights to the German counterpart to making "direct payment" to the civil works contractor Dywidag-Dracados-CWE JV during "exceptional times".

➤ **Suspended again** The work was suspended in the first week of Nov 04 after threats from the Maoists. Consultant has said that work cannot resume until the contractor receives a security guarantee from the Maoists. It employs 1500 wage earners. Nearly 40% of the work has been completed. This is the third time DDC JV has halted work since it started 3 years ago. (Kathmandu Post 301004, 081104, 091104, 261104)

Questions over Sapta Koshi high dam A team of experts from India and Nepal have begun work on a feasibility study of the Sapta Koshi multipurpose project. Nepal and India agreed in 1997 to set up a joint technical team of experts from both sides to carry out a study of the feasibility of developing the Koshi Dam to a height of 269 - 335 m. The project is expected to generate 5 500 MW power. The irrigation system under the proposed Koshi project will irrigate 300 000 Ha of agricultural land in Nepal and more than that area in Bihar. A 165 km long waterway from Nepal's Chatara in E Nepal, where the Koshi River flows out from the hills to enter the southern plains, to Kolkata Port in India is another vision for the huge project. According to an agreement between Kathmandu and New Delhi, part of the overall project is to build a dam in Okhaldhunga district on the Sun-Koshi River - one of seven major tributaries of the Sapta Koshi. In addition, Nepal is proposing a Sun-Koshi-Kamala diversion. This diversion will bring Sun Koshi river water through a canal into the Kamala River in central Nepal. This canal and other canals from Kamala River will make a network of irrigation facilities, which is expected to irrigate land from the Koshi River in the east to the Bagmati River in central Nepal. The Sapta Koshi is the largest river in Nepal, with an average 150 000 cusecs flow in dry seasons. The river brings up to 400 000 cusecs during monsoons. The highest recorded flood in Koshi is 800 000 cusecs in early 1960s. India has already allocated Indian Rs 290 M (\$6.28 M) for preparation of the DPR, which India alone will fund. Proponents claimed that Nepal would reap tremendous benefits from the project. Bihar stands to reap tremendous flood control and other economic benefits from the Koshi multipurpose project, supporters say. Nepali experts do not agree. "Bihar is flooded every year not because of monsoon rains in Nepal," says

water resources engineer N. K. Shrestha. "Rather, it is the mismanagement of the natural drainage systems in Bihar which is causing the problems." Some experts in Nepal are against the massive dam. "The proposed high dam will be built in a seismic fault zone in the southern flank of the Himalaya. Constructing a dam with over 300 m height in this area is to invite destruction," says geologist Ramesh Sharma. According to preliminary estimates, hundreds of villages and several thousands people in Nepal will have to be displaced for the project. Bangladesh too has demanded a share in it. India, in the 1996 Farakka agreement with BD, has agreed that BD's consent is a must on any activity affecting water flow of Ganga. As Koshi is one of the major tributaries of Ganga and a high dam on Koshi would remarkably affect its flow, BD can't be ignored", BD Water Resources Minister said. (ENS 200904)

Nepal-India Meeting on Inundation The 13th meet of the Nepal-India Standing Committee on Inundation Problems ended with an agreement to suspend all controversial structures along the Nepal-India border until further agreements were arrived at. The major issues from Nepal in the meet were Mahalisagar, Koilabas bunds and Bargania bund. The Indian side raised the issue of the Dodhara-Chandani embankment works being undertaken by Nepal on the Mahakali River in Jogbuda. The bund, built in Mahali village in Siddharthanagar district of Uttar Pradesh, borders Bhagwanpur in Bedauli VDC near Taulihawa, the district headquarter of Kapilvastu. The bund has been built within 15 m of the international border between border pillars 50 and 51. The construction has posed inundation threats to Bhagwanpur, Kachrihawa, Lahrauli, Rangpur, Bhaisiya and Parsohiya villages. The international Helsinki treaty prohibits unilateral constructions within 12 km of international frontiers. In the case of Nepal and India, such constructions need the endorsement of SCIP, which was formed in 1985 precisely for this purpose. 58 inundation issues were taken up in the meeting. (The Kathmandu Post 031004)

Committee to Solve Bhotekoshi Power Controversy The Ministry of Water Resources has formed a 3-member committee to solve the controversy of payment to Upper Bhotekoshi HEP and the license of the project. The committee is chaired by Joint Secretary from the Ministry, and representatives from NEA and Water and Energy Commission Secretariat. Bhotekoshi Power Company had received a license to generate 36 MW but it has installed capacity to generate 45 MW. There is also a controversy between NEA and Bhotekoshi regarding the payment for 1.7 MU. (Kantipur Daily 291104)

\$ 20m ADB loan The Asian Development Bank has approved loan of \$ 20 M to Nepal so as to boost the productivity of farmer-managed irrigation systems in the Central and E regions. The project is to improve the livelihood of over 270 000 people by renovating about 210 FMIS covering 34 000 Ha, claimed ADB. The

ADB's loan will cover about 52% of the total project cost of \$ 38.6 M and comes from its concessional Asian Development Fund. The project is divided into two components. Under the first, the project will build the capacity of and mobilize water user associations to plan and implement subprojects to improve irrigation infrastructure, such as diversion structures, drainage, and canals. The second part deals with strengthening national-level institutions responsible for agriculture and water resources, and various public and private institutions involved in the project activities at the field level. (Kathmandu Post 201104)

W Seti A decade after getting the green signal from Nepal for the 750 MW storage type W Seti HEP, Australia's Snowy Mountain Engineering Corp is gearing up to start the work by mid-2005. The project is to export all the power to India. SMEC and China National Machinery and Equipment Import-Export Corp have agreed to achieve financial closure after they signed a partnership contract. CMEC is likely to be an investment partner. As per SMEC, the Power Trading Corp of India has agreed in the PPA to purchase power at US 4.95 cents per unit. (Kathmandu Post 061104)

Bangladesh Kapatai unsafe from earthquake The construction of Kapatai dam in Bangladesh was started completed in 1960. Although the reservoir area covers about 500 sq km, and the catchment area about 700 sq km, the peak water level inundates almost entire catchment area. There are five units having capacity of 242 MW. On an average, it generates about 120 MW. The recent study reveals that number of prominent faults such as Kolabunia fault of Rangamati, Sitapahar fault of Kaptai, and Bandarban fault of Bandarban are quite vulnerable to reactivations in earthquakes. More alarming is the occurrence of few earthquakes with moderate magnitudes in recent times with its epicenters falling characteristically in the alignments of the identified faults. If these faults are active, then any moderate earthquake in the vicinity of Kaptai dam will produce much more peak ground acceleration than the inherited PGA characterisation of the area. A recent study suggests that a maximum PGA of about 0.46g characterises the region along Karnaphuli river alignment. It is also reported that seismic factor 0.1g has been used in the construction of Kaptai dam. The Kolabunia earthquake of July 27, 2003 having magnitude 5.6 and depth of focus 10 km, has produced a PGA of 0.1g at a distance about 90 km from the source at Chittagong. This is an indication of vulnerability to produce large PGA if a moderately large earthquake source originates in and around the dam site. Kolabunia and Sitapahar fault zones have been identified as active earthquake source elements. Kolabunia fault is located at much greater distance than Sitapahar fault from Kaptai. The hazard vulnerability risk for Kaptai dam site is much greater in the activation of Sitapahar fault. Couple of earthquake epicentre

locations on to the Sitapahar fault is an active seismic signature of most likely pre-rupture condition with about 30 years return period of 5.9 magnitude earthquake. Since a 5.9 magnitude earthquake has not occurred in the last 30 years in the Chittagong Hill Tracts, it is feared that this may happen any time. If the dam fails or the abutment collapses then water from the reservoir will inundate and destroy everything downstream of Karnaphuli River. (The Daily Star 251004)

Bangladesh- Nepal team up for flood control BD and Nepal have decided to form a 'Joint Technical Study Team' and work together on flood mitigation and management. The 10-member study team will draw up a work plan on different aspects of flood mitigation and management programmes and submit it to the two govts in two years. "Our joint study team will select the places to build some reservoirs in the upstream in Nepal to delay and divert the floods. We have also agreed to work together on catchment management of rivers," said Dr Tauhidul Anwar Khan, member of the Joint Rivers Commission, who led the home side at the talks. Both the sides agreed on joint studies about the type, duration and causes of floods and its possible mitigation. The two-day meeting also discussed the possibility of arresting, delaying and diverting the floods. Earlier, after the devastating floods in 1988, the then king of Nepal and BD govt had agreed to work together on flood mitigation. Initially, the two countries formed a study team comprising experts from both the sides and a joint technical committee in 1989. Nepal would provide Bangladesh with all kinds of flood warning and water flow data. The meeting also emphasized the need for building tri-partite arrangement among Nepal, India and Bangladesh to curb water-induced disasters. (The Daily Star 311004, Kathmandu Post 011104)

Teesta project becomes useless The Teesta Barrage, the largest irrigation project in BD, has virtually failed to provide irrigation in its command area during dry season due to less flow in the river. 70 000 farmers in its command area have become frustrated, as they did not get water since commissioning of the First Phase of the barrage in 1998. As per the records with the Water Development Board office in Rangpur, the Teesta in Bangladesh turns into almost a "dry channel from Nov to March". The Teesta Barrage project was built at a cost of about Tk 10 B. Officials said farmers in the command area wouldn't get water in dry season unless India releases water. India has constructed a barrage across the river at Gozaldoba about 100 km upstream and diverts the Teesta water during dry season. The purpose of the barrage was to supply 283 cusecs water to 79378 Ha in 12 upazilas in Rangpur, Dinajpur and Nilphamari districts. (The Daily Star 150904)

Sri Lanka Controversial project in limbo The Environmental Foundation Ltd of Sri Lanka has filed an appeal in the Court of Appeal seeking to quash the approval given by the Central Environmental Authority

for the HEP on the Bomuruella falls on the upper reaches of the Uma Oya tributary in the central hill district of Nuwara Eliya. The project is located in the Kandapola-Seetha Eliya Forest Reserve in the central mountain, rich in biodiversity. The elevation of the planned weir will be 1750 m above sea level. It is to be built downstream of the existing Bomurella irrigation reservoir, which is tapped by cultivators. Experts allege that the waterfalls within a very important catchment area will be destroyed and the project requires felling of 1420 trees, which would damage the fragile ecology. Even the detailed EIA is yet to be done. Nor was there any examination of the impact on the stability of the slope or other geological features. The project has received funding from Britain and has so far spent some \$20 000 on feasibility studies and other tests. The project is to generate 9.5 MW power. (SaharaTime 110904)

Japan consultancy for HEP Japan's Electric Power Development Co, has signed a 2.7 B Yen 6-year contract with the govt to provide consultancy services for the 2X75 MW U Kothmale HEP. The plant will be located along the Kothmale River and about 100 km E of Colombo. (Daily News 131104)

AROUND THE WORLD

US Dam Removal a challenge The removal of Matilija Dam in S California presents a costly challenge. The dam's aging concrete chokes off sediment and nutrients that could nurture the riverbanks and restore Ventura County beaches downstream. So, it's got to go. The sheer size of its removal will make it one of the most complicated, and the project will cost \$130 M. Environmentalists and engineers agree the Matilija Dam has outlived its intended purpose. Officials add that demolishing the 198-foot-high dam would ultimately improve the area's ecosystem -- helping restore endangered steelhead trout by allowing them to swim upstream and spawn, and allowing sand to flow downstream and restore eroded beaches. The dam built in 1947 was created as a means of providing flood control to a handful of small downstream communities and recharging groundwater supplies used by farmers in the sparsely populated Ojai Valley. Now, the dam cradles mostly rocks and pebbles, and is clogged with 6 m cubic yards sediment. Part of the dam is already gone. Workers took out slabs built with substandard materials, reducing the dam's height to 165 feet in the middle. As the rest is removed, the watershed district will take steps to avoid flooding along the 16 miles of the Ventura River that leads to the Pacific Ocean. In US at least 145 aging dams have been torn down in the last five years for a host of reasons, including safety. Experts want to restore the Louisiana coastline, harmed by dams and channels on the Mississippi. In central Florida, ecologists are removing manmade channels from the Kissimmee River that destroyed wetlands and wildlife. On Washington's Olympic Peninsula, planning is under way to dismantle the 108-foot-tall Elwha Dam

and the 210-foot-tall Glines Canyon Dam as part of a \$182 M plan to restore the Elwha River, reopening 70 miles of salmon and steelhead habitat.

US Dams going back to nature The Cuddebackville dam in the Catskills is being pulled down by the Nature Conservancy and the US Army Corps of Engineers in a \$2.2 M project that is among dozens of dam demolition efforts underway this year. In the muddy aftermath of recent hurricane-related flooding that swelled the Neversink flow to 50 times its normal rate, a construction crew continued to dismantle the low-lying, 107-foot-long dam. A third of it has been torn down. The Cuddebackville dam is among 60 being torn down this year in 14 states as part of a growing movement to clear rivers of defunct barriers. Over 77 000 dams straddle streams nationwide, with at least 7 000 in New York. But few waterways so neatly illustrate the paradox of coexistence between nature and urban-dwellers as the Neversink, a tributary of the Delaware River that flows through the rolling greensward 90 miles north of New York City. The headwaters of the Neversink are cached upstream in a 35 B gallon reservoir and then channelled through the world's longest continuous underground tunnel to become the source of water for the city's 8 M residents. The waters below the reservoir retain a reputation as one of the finest wild trout fisheries in the world. The Cuddebackville dam, 40 miles downstream from the reservoir, was built in 1915 to feed local canals for barge traffic and to generate hydropower. It was abandoned in 1945. (Los Angeles Times 031004, CNN 301004)

US Federal court denies permission for HEPs A federal appeals court based in Denver in US has ruled against a company's application to put two new HEPs on the Snake River. Symbiotics LLC applied to the Federal Energy Regulatory Commission two years ago to install the dams at Star Falls and Eagle Rock. The commission denied the requests in 2002. Part of the denial was based on comments from the public that the sites' environmental value outweighed the potential for power production. (NBC News Watch 270904)

Guatemala Dam Occupation Wins A thousand Mayan villagers in Guatemala succeeded in persuading the govt to work toward negotiations on providing reparations for damages due to the Chixoy Dam. The Mayan villagers had warned, "No new dams can be built until they right the wrongs done to the people of Chixoy". Representatives of the Communities Affected by the Dam signed an agreement on Sept 8 with national electricity utility INDE, the Guatemalan Mission of Verification of the UN, and the Human Rights Division of the Attorney General's office. In the agreement, INDE agrees to review the documents on Chixoy; to expedite any remaining resettlement obligations; and to give copies of their documents to the communities. The Coordinating Committee also won agreement that a working group will be established comprised by

representatives of the affected communities; the govt; the Ministry of Energy and Mines; the Commission of Energy and Mines of the Congress; the WB and the Inter-American Development Bank; INDE; and the Spanish energy company Union Fenosa (owners of Guatemala's privatised electrical distribution companies). The Chixoy Dam was built during the late 1970s and early 1980s. Half the population of Rio Negro, one of the dam-affected communities, was massacred because of their opposition. Chixoy dam was largely financed with loans from the Inter-American Development Bank and the WB. Construction began without notifying local people, without a comprehensive survey of people to be affected, and without a plan for resettlement of the 3 400 mostly Mayan residents of affected villages. The 275 MW Chixoy accounts for 60% of Guatemala's electricity. The dam has been controversial ever since plans were first drawn up in the midst of army repression during 36-year civil war. In 1980, the army killed 300 people from the village of Rio Negro, upstream from the proposed dam, after they refused relocation. In the years since dam completion, the massacre survivors from Rio Negro and the people from neighbouring communities have lived in conditions of appalling poverty, violent repression, and psychological trauma. Housing is substandard; downstream villages are flooded without warning by dam releases. Because of a series of technical blunders, including building on an earthquake prone fault line, the dam cost \$1 B -- \$700 M over budget. Last month, Guatemala announced plans to build new large dams, including 2 on the Chixoy River, one of 330 MW.

➤ **Repression?** Amnesty Reports: Five massacres were carried out at the Achí village of Rio Negro, Rabinal municipality, between 1980 and 1982 in the course of operations by the Guatemalan military to combat armed groups. Local human rights groups say 4,000-5,000 people were killed during that period in the wider Rabinal area, and that 444 of the 791 inhabitants of Rio Negro were extra-judicially executed. According to numerous studies, Rio Negro may have been especially targeted because the land was required to build the Chixoy dam. In March 1982 the army and a civil defence patrol marched 70 women and 107 children from Rio Negro into the mountains and killed them. Three women escaped and 18 children were captured and detained by patrollers. Several of these children have become key witnesses in efforts to bring those responsible for the massacres to justice and to obtain compensation for the community's lost lands and possessions. The week of Sept 14 '04, INDE representatives formally presented a complaint to the Public Prosecutor's Office, in Cobán against members of the Chixoy dam affected communities. Those who took part in the protest were accused of activity against national security. The regional prosecutor has allegedly been disinclined to prosecute due to the lack of evidence of criminal damage to the dam, he has allegedly been instructed by the Attorney General, to individualize responsibility, to

bring criminal charges and to issue arrest warrants against individuals. As a result, several representatives of the 18 dam affected communities involved in the protest, who signed the agreement with INDE on 7 Sept 2004, are currently facing criminal charges. (Reuters 080904, IRN PR 110904, Down TO Earth 151004, amnesty.org)

Dark story behind the Chile HEP Chile's biggest HEP, Ralco Dam, has began to operate in Sept '04. It will provide 10% of the electricity for Chile. Ever since the construction of Ralco was announced, activists have protested that the project contravened the 1994 environment law and the legislation on indigenous rights, because the land in question was the ancestral property of the Pehuenche Indians -- a subgroup of the Mapuche indigenous community. Indigenous people, mainly Mapuches, represent 1 M of Chile's population of 16 M. Environmentalists accused former president Frei of favouring business interests and a \$570 M investment at the expense of the territorial and cultural rights of the indigenous families, which are recognised by Chilean law, and the preservation of endangered species and a unique ecosystem. The 11 families fought the Spanish power company Endesa to defend their traditional lands, until they finally reached an agreement last year. The conflict over Ralco dates back 15 years, to the 1989 announcement that four dams would be built on the Bio-Bio River, one of Chile's largest rivers. On Mar 6, 1997, then-president Frei inaugurated Pangué, the first of the four HEPs. The National Energy Commission decided later to cancel the other two dams. In 1999, Endesa acquired a controlling share in Enersis, the holding company that owns the Pangué and Ralco plants. By applying pressure, the Frei administration secured approval by the National Environment Commission in 1997 on the basis of insufficient EIA and technical irregularities. Environmentalists also accused Frei of "delegitimising" the National Commission for Indigenous Development, by forcing two of its chairs and two advisers to resign in order to ensure that it would also approve the HEP. The Inter-American Court ruled against Chile in 2003, but by then the dam was already 90% finished. So the govt had to compensate the Pehuenche families. The compensation included relocation to 1 200 Ha and payments of \$ 0.3 M to four families who finally agreed to leave their land. The controversy over Ralco calmed down somewhat when thermal plants fired by natural gas imported at low price from neighbouring Argentina began to be built in Chile. However, supplies of gas have been rationed since late 2003 due to an energy crisis in Argentina. (www.ipsnews.net)

Argentina HEP The govt of Chubut Province has announced that in 2005, there will be a call for bids for the HEP called "La Elena - Integral Use of Carrenleufú River" to be partially financed by the Inter-American Development Bank, flooding 11 000 Ha, mostly native forest. The Mapuche community said, "if the dams are built we will be 60 m under water." (radiomundoreal.fm)

Chinese groups seek to halt a Dam Experts in China are fighting plans for a HEP that they say would endanger one of the world's deepest gorge which is almost two miles deep and is helping to draw tourists to N Yunnan and also force the relocation of 0.1 m people, many of them ethnic minorities, living as farmers and herdsmen. The proposed Tiger Leaping Gorge would divert water from the Jinsha River in the mountainous N Yunnan Province to the fast-growing provincial capital, Kunming, partly to ease urban water needs. But the central govt has not granted final approval, and Chinese groups have issued a public petition to halt the project. Experts say the proposal threaten to ruin one of the few unspoiled places. Recently PM unexpectedly suspended plans by provincial officials to build 13 dams along the Nu River, which runs inside Yunnan's NW border. The river flows through a region considered so biologically diverse that a UN agency has designated part of it as a World Heritage site. The Jinsha River flows through the same region, moving E until it becomes the Yangtze. Last year, officials began discussing plans for a series of dams on the Jinsha. Few details have been provided to the public.

➤ About 1,500 km upstream of the Three Gorges dam, the Jinsha River (as the upper Yangtze is known), has forced its way through two high mountains to flow through a narrow 16-km-long valley. Legend has it that a tiger made the leap across the gorge at its narrowest point, where it is just 30 m wide. Elsewhere the gorge is 60-80 m wide, while the mountain peaks are over 3 000 m above the surface of the river. One of the world's most spectacular natural attractions is threatened by a plan to build eight big dams in a 564-km section of the river stretching from Shigu town near Lijiang and the Tiger Leaping Gorge, upstream to Panzhihua in Sichuan province and the downstream mouth of the Yalong River. The dams would affect 13 towns and townships in four Yunnan counties, flood 13 300 Ha of prime farmland. Liang Yongning, a professor at Kunming University of Science and Technology, says the cascade of dams is designed to be a supplementary project to the Three Gorges dam, regulating water runoff and blocking silt from the upstream river. But local people are not at all keen on the projects. Residents felt particularly concerned that the project would flood the area's best farmland, which currently supports 300 000 people. Many of the people who stand to be affected by the project belong to ethnic minority groups, including the Naxi, Tibetans, Bai, Yi and Miao. In July '03, UNESCO listed the Three Parallel Rivers National Park as a world natural heritage site because of its special importance for geological research, extraordinary natural beauty, and wealth of biological and cultural diversity. UN officials were puzzled when Chinese authorities asked that Tiger Leaping Gorge, one of the main features of the park, be excluded from the arrangement. An official in charge of env assessment in State Env Protection Admin claimed to know nothing about the plans, saying: "How is it that big dams would

be permitted near Tiger Leaping Gorge? The site is one of the most dazzling and precious natural wonders in all of China. SEPA will not approve any plan to build a big dam in the area." Representatives from 9 Chinese env NGOs met in Beijing in Sept and sent a letter to project authorities urging them not to proceed with the dam.

➤ **Priority to efficient HEPs** China will put priority on HEPs as part of its sustainable development strategy to reduce pollution resulting from burning coal, vice-minister of water resources said. China's HEP reserves stand at 700 MU, 40% of its total conventional sources of energy. China's HEP potential ranks first in the world. Its utilization ratio is 24%. Large HEPs usually force millions to leave their homes, change river courses; cause sedimentation and water quality can deteriorate. HEPs may change local climates, induce geological disasters and threaten the ecological environment along rivers.

China halts dam, sacks official after protests China had temporarily suspended work on a dam project in the SW province of Sichuan and sacked at least one Communist Party cadre as armed police patrol the streets weeks after thousands gathered in violent protests. At least one person was killed when tens of thousands of farmers in Hanyuan county protested over a HEP that will flood 0.1 m people out of their homes. Residents said they were angry about the level of compensation being offered at the Pubugou HEP for moving their homes from a river basin to a mountainous area of poorer farmland. The dam is being built on the Dadu River, a tributary of the Yangtze, and was due for completion by 2011. (The New York Times 201004, China Daily 301004, threegorgesprobe.org, Reuters 181104)

Massive South-North diversion facing woes The S-N water diversion project in China is strapped by financial difficulties and severe pollution, state media reported. Work on the SN Diversion Project, one of the world's biggest and costliest projects, began in 2002. The plan is to divert 13.4 BCM water a year from the Yangtze River in China's wetter south to arid areas in the north. But the project, the total cost of which is projected at \$60 B, is already over budget. The central govt, which is covering 30% of the costs, would have to raise "special funds". China has launched 260 projects to curb pollution and help local govts meet a deadline for ensuring the water in their sections of the diversion project meet minimum drinking standards by 2007. (uswaternews.com)

China on the brink of ecological disaster Sino-US researchers have revealed that the unprecedented pace at which glaciers in W China are melting serves as a warning of the ecological strain. The team had warned of increased downstream flooding and a potential ecological disaster when the glaciers in the Qinghai-Tibet plateau eventually disappear by 2100. Glaciers on the plateau have been shrinking at an average pace of 7% annually in the past 40 years, a

great increase from the annual 5% shrinkage seen during 1850-1960. The damage to glaciers in SE Tibet and the regions at low levels appeared to have been the most severe, according to the group of 20 scientists who conducted their month-long study in the Himalayas and S Tibet's mountains. (ANI PR 101004)

Burma to assess env impacts of Dams Burma's govt says it's begun to assess the environmental impact of dams built in recent years. An official from the Agriculture and Irrigation Ministry has admitted the govt at first didn't care about the effect of dams but it's now putting a priority on the environment. The junta has built 164 dams during its 16-years in power, another 25 more scheduled to be finished before 2007. Of the dams built most are for irrigation, with 27 used for Hydropower. (Australian Broadcasting Corp 031004)

Concern Over Burma Dams raised in Beijing At the first *Symposium on Hydropower and Sustainable Development*, organized by the UN, the Govt of China and the WB in Beijing on Oct 27-29, EarthRights International joined with some NGOs and farmers from SW China in voicing concerns about human rights and environmental impacts of large dams. The Salween River, known as the Nu River in China, is the longest free-flowing river in SE Asia. Where the Salween runs along the Thai-Burmese border, at least thirteen ethnic groups, including the Shan, Karen, Karenni, Mon, Wa, Pa-O, Lahu, Padaung, Akha, Lisu and Palaung, live in traditional communities along its banks. Many ethnic groups in China also rely on the river for their livelihoods. The river basin area has been designated as an UNESCO World Heritage Site for its rich biodiversity, rare wildlife and internationally recognized wetlands. Over two dozen dams are planned for the Salween River and the Mekong River, all being planned, financed or constructed by China. All of these dams, whether in Burma or upstream, pose serious threats to downstream communities living in Burma. There will be no consultation or public participation regarding the dams. An estimated 70 000 - 80 000 people in China alone will be forced to relocate if dam development goes forward on the Salween River. In response to the proposed dams in China, representatives from NGOs issued public statements this year calling on China to halt construction of the dams until fair consultations with downstream communities could take place. Shortly afterwards, Chinese PM suspended the dam construction plans on the upper Salween River, calling for more scientific investigations into the impacts. (Earth Rights International)

SA buys into \$ 5 B HEPs in DRC The govts of five southern African countries, including S Africa, agreed to build a HEP in the Democratic Republic of Congo, part of a \$7.3 B plan to upgrade the region's infrastructure. SA, Angola, the DRC, Namibia and Botswana would each own equal shares in Westcorp, a company that would provide funding for the \$5 B, 3 500 MW Inga-3

project, the minister of minerals and energy said. The plant would produce 10 000 MW and transmit it to SA, among other countries. The five countries hoped to finish building Inga-3 by 2011. The plant would make it possible to link southern, western and eastern Africa and the Nile Basin. "To respond to short-term power needs of 1 000MW the DRC is trying to attract foreign investors for the rehabilitation of Inga-1 and Inga-2," the DRC's minister of minerals and energy said. The DRC would also consider building the Grande Inga HEP that had 40 000 MW capacity. (Business Report 261004)

Brazil Dam-Affected and Environmentalists Join The members of Movement of Dam-Affected People and environmentalists blocked the access road to a stand of virgin forest on Oct 21, slated for clearing before the filling of the reservoir for 690 MW, \$ 475 M Barra Grande dam. 6 000 Ha of primary forests, including araucaria pines, in one of the richest remaining expanses of the threatened Atlantic Coast rainforest would be flooded by the dam, on the Pelotas river in S Brazil. A 2 000 Ha stand of virgin araucaria forests was somehow "omitted" in the project environmental studies. MAB says they will remain on alert until effective environmental protection measures are implemented, and until concrete actions are taken to compensate some 650 families considered by the consortium to be ineligible for resettlement or indemnification. The Atlantic Coast Forest NGO Network and the Federation of Ecological Groups of Santa Catarina state have filed a lawsuit asking a federal court to annul the license awarded to Barra Grande, to require the consortium to carry out new studies evaluating the possibility of operating the reservoir at a lower level to avoid drowning the araucaria forests, and if this is deemed impossible, to order the demolition of the dam structure. The error on the EIS was officially recognized only after the dam was 80% built, making efforts to suspend the project moot from an economic point of view.

➤ **Big hydro plans** The Brazilian Association of Infrastructure and Heavy Industries estimates the country will require investments of up to \$5.5 B annually in new energy generation over the next eight years. The Govt's alternatives to privatisation of electric companies is a plan supported by World Bank and Inter American Development Bank to provide incentives for Public-Private-Partnership. The Govt also plans to change the way dam projects will be offered in concession. Under the new model, winning bids for right to build dams will no longer be based on the highest offers for royalties to be paid to the govt, but rather on the lowest declared cost for energy that will be sold to the national grid. The govt has offered to investors 17 HEPs, with a total installed capacity of 2817 MW, scheduled for early 2005. However, economic and environmental problems may limit the govt's ability to proceed on schedule. Recent controversy has centred on Brazil's environmental licensing process for new dams. Some 45 large HEPs with a total installed capacity of about

13000 MW are currently in the licensing phase, with 24 facing complex environmental issues. Of the 17 dams projected for concession that is sure to attract close scrutiny, the 256 MW Dardanellos Dam proposed near the headwaters of Aripuana River. The largest project on offer is the 480 MW Ipueiras Dam on the Tocantins River. Dams are also proposed in Goias, Rio Grande do Sul, Parana, Rio de Janeiro, and Minas Gerais states. None have completed env studies, and each project will have to undergo analysis by federal or state licensing authorities, public hearings, and also likely legal challenges, if recent experiences are any sign.

➤ **River diversion scheme criticized** The govt recently announced that it would proceed with the \$1.5 B project to divert waters from the Sao Francisco River to NE Brazil. The decision was made without consulting the River Basin Committee set up as a decision making body on managing the river's water resources. The Sao Francisco River Basin Committee said that the Govt violated its agreement with the committee. The project is expensive and unnecessary. According to reports, the govt plans to bypass the basin committee by seeking approval for the project with the National Water Resources Council and National Water Agency. The Sao Francisco River diversion will channel about 3% of the annual flow of the Sao Francisco through 500 km of canals to regional rivers for irrigation and urban water supplies, as well as for industries. Opponents of the project say there is insufficient flow in the Sao Francisco to guarantee adequate supplies for all users, now threaten to take legal actions to halt the diversion, which still faces the hurdle of achieving an env license. (World Rivers Review Oct 04, irn.org)

WB says Thailand's NT2 HEP Viable The Nam Theun 2 (NT2) "Super Dam" HEP is economically viable given the guaranteed power purchases from Thailand, according to the initial findings of a consulting team from the World Bank. The World Bank team was commissioned to study whether the project, scheduled to be completed in 2009, represented the least-cost energy option for Thailand and Laos, once the environmental and social costs were included. The expected base financial cost is \$1.18 B, but does not include some contract items or assessments of upfront environmental and social costs. But Mark Segal, a consultant on the report, said the project was considered to be viable overall. He estimated the social and environmental costs at \$120 M, or 10% of the total investment. Xaypaseuth Phomsoupha, chief of the bureau secretariat of the Lao National Committee for Energy, said one possible area for cost overruns was in the tunnel-drilling process, which accounted for 7-8 % of the cost. Thailand will take up 95% of the expected annual electricity production from the NT2, with the rest to go to the Lao grid. (WB Press Review 081104)

Finland Water With 200 000 lakes, almost 10% of Finland's total land area is covered by water. Its lakes supply water for its 5 m inhabitants - and every Finn

uses an average of 145 litres water each day. In 2003, a UN survey ranked Finland's water supply first out of 122 countries. In Finland, groundwater requires very little treatment for use in the water supply. But surface water from lakes has to be treated because it contains large quantities of organic matter - especially when a lake has no river to carry the sediments away. About 150 km N of Helsinki, the Tampere Water Plant treats about 40 M litres every day using a 4-stage technique called Dissolved Air Flotation. Firstly, chemicals are added to the lake water, encouraging organic matter to float to the top. Secondly, water is aerated with bubbles to push the organic clots to the surface. The third stage is to channel the purified water into basins with sand filters, removing any last bits of organic matter. Finally, any remaining odours are neutralised. Organic matter in Finnish rivers has been reduced by 87% compared to levels in 1970. The technique is being exported to other countries. (BBC WORLD 281104)

IFC Weakening Env & Social Standards

The World Bank's private sector arm, International Finance Corp, is now in the process of revising the information disclosure policy and safeguard policies, which are environmental and social standards. IFC has been facing conflict with NGOs on the revision process. 180 NGOs sent a letter to the President of WB and the Executive VP of IFC to reconsider the revision process. However IFC substantially didn't accept the NGOs demands. Therefore, most of NGOs boycotted the consultation in Rio de Janeiro and the stakeholder meeting in Washington DC. IFC's standards have great influence on those of corporate and financial institutions. "Equator Principles", which provide social and environmental standards for private banks, were established based on IFC standards. The principles are now signed by 27 major private banks in the world. Besides, Export Credit Agencies refer to the IFC standards in their policies.

Flaws in Revision Process IFC is driving for the board approval of new policies in Feb. IFC decided to set up the public comment period only for 30 days, even though all current 10 safeguard policies will be unified. It is one of the serious flaws in the process. Free open participation of civil societies to the consultations is not allowed for both policies.

Flaws in the Draft papers Certain important criteria in present 10 safeguard policies are omitted without any explanations in the Draft of Performance Standards. The requirements to the project sponsors as well as the responsibility and review procedure of IFC are too vague. It's a big question whether such vague standards will be implemented. The current 'presumption in favour of disclosure' principle is not referred in the Draft of information disclosure. The draft failed to mention the name of the basic documents that IFC produces. (JACSES PR 251004)

STATEMENT FROM INTERNATIONAL NGOS ON

UN HYDROPOWER AND SUSTAINABLE DEVELOPMENT SYMPOSIUM

We welcome the opportunity to attend this symposium and to provide perspectives on the role of hydropower in sustainable development. However, we are disappointed that participation of international NGOs in this conference has been systematically marginalized. We present this statement to clarify our concerns and recommendations.

While HEPs have brought economic benefits, they have also adversely affected millions of people who depend on rivers for their survival. These projects have irreversibly damaged ecosystems and led to the loss of livelihoods, cultures and the rights of affected communities. Rather than improve the lives of affected people, HEPs have left them impoverished and unable to provide for the security and well-being of future generations.

Large HEPs has mostly been developed without the free consent or informed participation of affected communities and without considering other viable energy options, such as small-scale renewables and demand-side management. These options are less expensive, easier to implement and more effective in meeting the needs of people who currently lack access to adequate electricity supplies. Therefore, large HEPs should not be considered renewable.

While many govts and developers recognize these issues, they have not taken adequate steps to ensure these will be resolved with future hydropower development. The International Hydropower Association's Sustainability Guidelines are a positive step, however, these guidelines reflect a strong pro-hydro bias and cannot supersede the comprehensive recommendations developed by the independent World Commission on Dams.

Therefore, while we are not opposed to all hydropower development, we believe that hydropower's role in sustainable development must be carefully considered, especially when it comes to poverty reduction. Should HEPs be selected as the most appropriate energy option through a comprehensive options assessment process, projects should proceed only if they comply with the recommendations of the WCD at a minimum. For humane, equitable and environmentally sustainable development, the following internationally recognized principles must be adhered to for ongoing and future hydropower development:

New HEP in Indonesia PT Mega Power Mandiri will build a 219 MW \$220 M HEP on the Asahan river in Asahan, N Sumatra, by Sept '05. The River feeds two HEPs. This was one of the projects shelved following the 1997 economic crisis. (Business Asia Today 251004)

Sustainable development includes gaining public acceptance and ensuring participation Projects should not proceed without the free prior and informed consent of affected people, including those displaced and upstream and downstream communities with special emphasis placed on ethnic minorities and indigenous peoples. Such consent must be achieved through democratic processes where affected people and civil society are provided with timely information translated into local languages. These concerns must be incorporated into all decisions on hydropower development.

Sustainable development includes equitable resettlement programs Projects that involve forced displacement should be avoided or minimized at all costs. However, should communities be forced to resettle from their lands for hydropower projects, a fully participatory resettlement plan should be developed with adequate compensation; land-for-land compensation should be a priority. The lives of resettled communities should be improved or at least restored so that they do not fall deeper into poverty.

Sustainable development includes effective environmental mitigation Environmental impacts should be assessed in a river basin context and effective mitigation plans developed and implemented.

Sustainable development includes equitable sharing of benefits Affected people should be among the first to receive benefits from HEPs. Legally binding & enforceable agreements on mitigation & compensation should be arranged between affected communities & developers. After completion of projects, periodic monitoring should be carried out by neutral third parties to ensure that commitments are met.

Sustainable development includes cooperation in sharing and managing international rivers Transboundary impacts of HEPs must be fully investigated and documented in environmental and social impact assessments. Communities living upstream and downstream should be consulted during the planning process.

Endorsed by Narmada Bachao Andolan (India), South Asian Solidarity for Rivers and Peoples, Water and Energy Users Federation (Nepal), Southeast Asia Rivers Network (Thailand), EarthRights International, WWF International, Oxfam America and International Rivers Network (USA). Beijing, China 271004

Portugal rejects nuclear energy, Big Dam The Portuguese govt has ruled out the use of nuclear energy to reduce the dependency on petroleum. The use of nuclear energy and large dam were rejected by the govt. (news.xinhuanet.com)

GENERAL ENVIRONMENT ISSUES**Proposal for National Commission on R & R**

The National Advisory Council has accepted a proposal from its members to take up the issue of rehabilitation of the displaced persons. The NAC meeting has asked one of its members, Aruna Roy, to table a proposal in this regard. Ms Roy said the idea was to set up a National Commission on rehabilitation, as at present the country had no proper program and procedure for rehabilitation and settlement of the displaced persons. Even the existing rules on rehabilitation and resettlement are not followed by the authorities. She said the proposed National Commission on Rehabilitation, which would have both executive and judicial powers, would be set up with the cooperation of organisations and people's movements. The Commission would take into account the cases of those suffered from misplaced development activities as well, including the expansion of cities and land acquisition by the Govt as well as MNCs. (THE HINDU 010904)

Development of tribal villages The Ministry of Tribal Affairs has identified the Development of Tribal villages as the Priority for 2004-5. Of the 2690 forest villages reported by the MEF, only 167 villages have so far been converted into revenue villages and get the benefits of all development schemes. Ministry of Tribal Affairs has requested all the states to take immediate action to confer ownership rights in respect of Minor Forest Produce, including tendu patta. This can be done by defining minor forest produce under the Panchayats (Extension to Scheduled Areas) Act, 1996. PESA provides for the ownership of MFP to the Gram Sabha. The Ministry has asked the states to define the MFP in such a way that it includes "all" the traditional produce of the tribals. Rs 4.5 B for the 10th Plan has been asked from the Planning Commission for the development of forest villages. The Ministry has also decided to provide the Primitive Tribal groups with the benefits of insurance coverage. The Ministry of Tribal Affairs has asked the states to identify thrust areas for each tribal area and prepare schemes based on land and water management. Under this "cluster approach", the focus would now be on schemes that enhance income-generating activities and creating infrastructure of the tribal villages. States have been requested to prepare comprehensive land based plans for overall development of the STs by taking up the developmental activities including minor irrigation on lands owned by STs. The Ministry has received some proposals from the govts of Jharkhand, Rajasthan, Chhatisgarh, MP, Arunachal Pradesh, Karnataka and AP and also a few NGOs like SADGURU and also specific projects for development of land of Primitive Tribal Groups like Chenchus. The Ministry has finalized projects under Special Central Assistance to Tribal Sub Plan for the current year focusing on the land-based activities. Under

this scheme there is a provision of Rs 4.97 B this year. An additional demand of Rs 2 B has also been made to the Planning Commission for development of tribal lands through minor irrigation and RWH. (PIB PR 051104)

Rejection of draft National Tribal Policy A national assembly of tribal and indigenous peoples have rejected the draft National Tribal Policy, saying that "mainstreaming and assimilation" violated the rights of the tribal, indigenous and Adivasi people and that it was indicative of the complete absence of respect for the "unique culture" of these communities. The language of the draft policy was unacceptable, offensive with derogatory definitions and descriptions, which showed a lack of consistency and clear recognition of rights to ancestral lands, territories and natural resources, said a declaration adopted on the policy. There is also no recognition, protection or promotion of tribal, indigenous and Adivasi customary laws, practices and governance systems and adverse impact of liberalisation, privatisation and globalisation. (THE HINDU 240904)

Rajasthan tribals face eviction threat Thousands of tribal dwellers on forestlands in S Rajasthan face the threat of eviction following notices issued by the Forest Dept. The forest officials allegedly destroyed the houses and ravaged tribals' belongings in 3 villages in Pali district without the due process of law. The Jungal Jameen Jan Andolan has protested against the gov't's plan to oust tribals despite the Centre's decision to regularise the land rights of tribal dwellers who have been in continuous occupation since Dec 31, 1993. The govt had also decided in 1991 to regularise the encroachments made on forestlands before July 1, 1980. However, there has been no progress in the matter. The MoFE, in its order issued in Feb '04, had observed that when the areas where tribals had been living since the time immemorial were brought under the purview of Forest Acts, their traditional rights were not settled, making them "encroachers in the eyes of law". (THE HINDU 191004)

Panel opposes reopening of mines in Aravali hills The three public representative members of monitoring committee appointed by the Supreme Court, to report on illegal mining in the Aravali hills have strongly opposed the reopening of the mines in specified areas keeping in view the fragile nature of the region. The region specified comprised Faridabad, Gurgaon and Alwar dist of Haryana and Rajasthan. The three members – Bhurelal, Balmik Thaper and Dilip Biswas – recommended that MEF notification regarding saving the Aravali Hills be extended to the whole of the region to save the fragile hills.

➤ **HC warns Rajasthan** The High Court has castigated the pollution control board for hurriedly approving operation of thousands of mines that had been flouting norms all these years. The 23000 mines, of which 18000 have maximum one Ha area, could operate only after a Supreme Court order in 2002, which

recorded no objection given by the Union Govt, Rajasthan Govt and Central empowered committee. They were directed to strictly enforce the environment protection laws. In fact, Chief Justice Anil Dev Singh's judgement reveals that the SC judgement was violated both by the mine operators and the govts in Delhi and Jaipur. (THE TRIBUNE 040904, THE TIMES OF INDIA 021104)

Himachal Forestry scheme The Himachal Pradesh has launched a Rs 600 M multi dimensional forestry scheme in 90 pilot locations as part of the UK funded forest sector reform project. (THE TRIBUNE 251004)

Environmental clearance Norms The Centre has proposed set of norms demarcating the projects that need approval from state agencies or the Union ministry to expedite the process of obtaining environment clearances. The proposals would limit to 19, the number of activities that would require clearance from the Union Ministry of Environment and Forest. The proposal is framed as part of the WB assisted environmental management capacity building project. The new proposals envisage the total time period for obtaining final clearance up to 12 months with ensured certainty. As per the amended notification, new township, industrial townships, settlement colonies, commercial complexes, hotel complexes, hospitals and office complexes for over 1000 persons or discharging sewage of more than 50 000 MLD or having an investment of over Rs 500 M or any industrial estate accommodating industrial units in over 50 Ha if their pollution potential is high are required to obtain environmental clearance from the govt. According to the revised process, the allocation power to approve projects, which have been categorized into A and A/B lists, has been done on the basis of scale of potential impact of project rather than its cost. Proposals that are likely to have a higher impact on environment, or affect more than one state or a neighbouring country, will fall under Category A, requiring clearance from the Centre. The remaining projects will fall under Category B and will require approval from the concerned state govt.

➤ **States oppose clearance proposals** A majority of states have joined in protest against environmental clearance proposals, saying these were contrary to the Centre's principles of decentralised development. (BUSINESS STANDARD 080904, THE TRIBUNE 120904)

Misuse of funds in Bihar Millions allotted to Bihar in the name of Wasteland Development Programme have misused. The Centre has sanctioned nine projects under WDP, for nine districts and each district received Rs 4.125 M as first instalment. The districts that received the funds were Saran, Purnia, Kishanganj, Vaishali, Siwan, Darbhanga, Gaya, Munger and Nalanda. Each district had to develop 5000 Ha. As per Ministry of Rural Development, 11 projects had been sanctioned in 2002-3 too. Rs 320 M had been sanctioned for the development of 54 000 Ha of wasteland. These projects had to be implemented in Nalanda, Kishanganj,

Vaishali, Purnia, Saran, Siwan, Darbhanga, Gaya and Munger districts. But the Govt could receive only Rs 50.9 M out of Rs 320 M and nothing could be done in this regard. (HINDUSTAN 191004)

PM package for Manipur The PM has agreed to sanction an economic package covering various projects in Manipur, which amounted to Rs 27.777 B. The projects included Loktak Downstream HEP (Rs 6.594 B), electrification of 477 tribal villages (Rs 2 B) with other projects. The assistance for flood was also considered at the time of PM's visit in Manipur. (BUSINESS LINE 221104)

Project delays burdens govt Due to delays in execution of projects, govt is suffering from huge loss. A detailed estimate by the govt tracked nearly 600 govt projects and found that 284 of them were behind schedule while 149 do not have date for commissioning. The net result is expected increase in cost for these projects for Rs 2 203.62 B as per original estimate to Rs 2 678.15 B on account of cost overruns, leading to the avoidable expenditure of Rs 474.53 B. The estimates covered 49 mega, 261 major and 295 medium projects. Nearly Rs 1051.46 B has been invested in these projects. (THE ECONOMIC TIMES 171104)

Punjab finances The CM has sought additional Central assistance of over Rs 36 B combined with a debt relief of Rs 44 B to enable the state to achieve its approved outlay of Rs 186.57 B during the 10th Plan. The state has formulated a scheme to replace 1 M ha of wheat and paddy land with other crops. If implemented in a phased manner Rs 3.2 B would be required to cover 0.25 M Ha during 2005-6. He also said an additional Rs 6.8 B should be released immediately over the next 3 years in order to implement the drinking water programme in rural areas. All remaining 564 covered and 1324 partially covered habitations were required to be covered with safe drinking water supply up to the end of the 10 Plan. (THE TRIBUNE 211104)

WB pledges \$9 B loan over 3 years The World Bank promised to extend loans worth \$9 B to India in the next 3 years, most of which is intended for railway, power, road and water resource sectors. Officials of ministries of power, railways, roads and water resources made detailed presentations before the WB chief and projected the funding requirements totalling \$19 B over the medium to long term in their respective sectors. Although the country assistance strategy of World Bank stipulated assistance of \$3 B annually, govt officials said the requirement could be much higher at about \$4 B per year. Power minister said that power sector identified various projects for WB funding totalling \$4 B, \$1 B each for rural electrification, hydropower, power transmission and combined power cycle plants. WB would identify irrigation projects for funding after a meeting with govt officials. (PTI 191104)

OPEN LETTER TO MEF

Organisations Petition over Environmental Abuse

Nearly 70 leading Indian organizations and experts launched a nation-wide drive to adhere to environmental norms before clearing projects, which are damaging the country's fragile ecology. The petitioners believe the govt is systematically undermining the importance of environmental issues in decision-making, and paying scant attention to Environment Impact Assessment reports. The petition pointed some trends and gave examples of actions of the MoEF.

1. **The notification of the Biological Diversity Rules 2004** These Rules notified under the Biological Diversity Act 2002, are scientifically unsound, considerably undermine the role of local communities in safeguarding biodiversity and traditional knowledge, and have *completely* ignored the very many sound inputs provided by NGOs and activists when the draft Rules were first put out by MoEF.

2. **The dilution of notifications under the EPA** Over the last few years MoEF has considerably reduced the scope and weakened the provisions of various notifications and rules under the Environment Protection Act 1986. The dilutions include: (in the case of the Environment Impact Assessment notification) public hearings being dropped for projects such as the widening of highways and mining leases for major minerals under 25 Ha; (in the case of Coastal Regulation Zone notification) allowing Special Economic Zones, effluent treatment plants, industrial salt pans, and the mining of atomic minerals in coastal areas. These dilutions have significant impacts. For instance, in the case of the mining projects, Indian Bureau of Mines data shows that almost 50% of the mining leases for major minerals are for below 25 Ha.

3. **The clearance of projects without adequate assessment** There are many shocking instances where MoEF has given clearance to dams, mining, roads, ports, industries, and other projects, without an adequate environmental impact assessment or without ensuring that environmental safeguards are built into the project. Examples of this abound: Lower Subansiri HEP (Arunachal Pradesh), Allain Duhangan HEP (Himachal), Teesta Low Dam (W Bengal), Bodh Ghat project (Chhattisgarh), Raoghat Bauxite project (Chhattisgarh), and many others. Some of these projects even threaten many areas that govt has declared protected for wildlife.

4. **Reluctance to insist that env conditions are followed by project proponents** A large number of development projects cleared by MoEF do not fulfil the conditions under which they were cleared, yet MoEF has taken action on hardly any of them.

5. **Waste of capacity building funds** A huge loan was received by MoEF some years ago, for "Environmental Management Capacity Building Programme" which essentially required: a) A comprehensive review of the Environmental Clearance Mechanism; b) Preparation of Manuals for Environment Impact Assessment; c) Development of an Environmental Information Centre and d) Environmental Law Capacity Building both for the Ministry and for other agencies. Yet this process has been developed with meager consultation, and despite the debt incurred, the results do not seem to have resulted in any improvement in the functioning of the MoEF.

6. **The framing of a National Environment Policy without public participation:** Having heard that MoEF is drafting a NEP, some of us have repeatedly asked for details on how this is happening and how citizens can make inputs. A draft

was put up on the MoEF website on Aug 21, for comments. There has been no other process of reaching out to the citizens of India for inputs to the Policy, in particular to local communities who do not access websites or read English. [Some of the citizens' grps, when they tried to participate in the so-called consultation meeting, they were thrown out of the meetings.]

7. **The delaying of the National Biodiversity Strategy and Action Plan** Despite itself facilitating a uniquely consultative process over four years, to prepare the NBSAP, MoEF is now delaying its final approval, publication, and release. The reasons being given are that even as a final technical report, the draft needs to go through Cabinet approval, and that it needs to wait for the NEP to be finalised (though the process of framing this Policy began over 3 years after NBSAP).

8. **Siding with the building lobby** Rather than help conserve natural ecosystems against unchecked urban growth, MoEF has often tried to make the way easier for the building lobby. For example, instead of supporting people's groups to protect some of the last remaining forest areas in Delhi, including parts of the Delhi ridge, MoEF has favoured the lobby that wants to promote the construction of five star hotels and shopping malls in this area.

9. **Ignoring Supreme Court orders on A&N Islands** In violation of SC orders, the MoEF has refused to close down the Andaman & Nicobar Islands Forest and Plantation Development Corp that has been destroying the forests and the habitat of the tribals in the islands.

10. **Lack of public discussion and transparency on genetic engineering** Another example of the increasing opaqueness of functioning in the govt is the lack of public participation in decisions regarding genetic engineering. This risky technology is being pushed through with no long-term safety tests, and almost no independent scientific or public inputs.

In almost all such cases NGOs and affected people have protested, pointed to violations and destructive implications, and often even offered alternatives, yet all this has been systematically ignored. Some steps have been suggested to reverse these trends. It needs to take at least the following steps:

1. Providing a legally mandated and explicit role for citizens (especially local communities) in the decision-making process within MoEF (and GOI in general). This can be done by including independent and credible representatives of communities and civil society in the various expert committees; ensuring that citizens' inputs in draft notifications and legislation are considered through a transparent process; strengthening the public hearing process for 'development' projects; constituting an independent monitoring and evaluation agency to assess compliance of environmental conditions and regulations; and other such measures.

2. Considerably strengthen the mandate and functioning of the MoEF, e.g. by increasing the number of technical experts and officials who are known for their commitment to the environment.

3. Centrally integrate environmental considerations across the entire decision-making process, right from the planning and design stage of economic sectors and projects and not only at the final stage of clearance. This includes, the

strengthening of the EIA, clearance, and monitoring procedures.

4. Reviewing the Common Minimum Programme and its implementation from the environmental perspective, including through a serious consideration of environmental issues in forums such as the National Advisory Council. The NAC is a step towards more public participation in decision-making, but needs a greater integration of environmental concerns in its deliberations.

Petition urged the govt to draw up a concrete action plan on how to take the above and other steps, to significantly improve the manner in which decisions are taken on environmental issues. This should include the setting up of an independent monitoring and evaluation body, comprised of community and civil society representatives that can ensure env sensitivity in decision-making. While drawing up such an action plan, there should be active and meaningful participation of community organisations, people's movements, NGOs, and other civil society organisations. Signatories are:

Samir Acharya (Society for Andaman and Nicobar Ecology), Ravi Agarwal (Toxics Link, Delhi), Sunderlal Bahuguna (Himalaya Bachao Andolan), Gautam Bandopadhyay (People's Alliance for Livelihood Rights), Jayanta Bandopadhyay, Amitabh Behar (NCAS), Erach Bharucha, (Bharatiya Vidyapeeth Institute of Environment Education

& Research, Pune), Seema Bhatt, Biodiversity Consultant (Delhi), Prashant Bhushan (Advocate), Sripad Dharmadhikary (Manthan, Badwani), Debi Goenka (Bombay Environment Action Group), Colin Gonsalves (Socio-Legal Information Centre, Delhi), Pandurang Hegde (Appiko/Prakruti, Sirsi, Karnataka), Ramaswamy Iyer (Former Secretary, MoWR), Asmita Kabra (Samrakshan Trust), Smitu Kothari (Lokayan), Ashish Kothari (Kalpavriksh), Ashok Kumar (Wildlife Trust of India), Souparna Lahiri (Delhi Forum), Harsh Mander, Thomas Mathew (South Asian Conservation Foundation), Kisan Mehta (Save Bombay Committee), Fr. Victor Moses (St. Xavier's Social Service Society), Somnath Nayak (Nagarika Seva Trust, Karnataka), Sathesh P.V. (Deccan Development Society), Rekha Panigrahi (Vasundhara, Orissa), Medha Patkar (Narmada Bachao Andolan), Sujit Patwardhan (Parisar, Pune), M.K. Prasad (Kerala Sastra Sahitya Parishat), Asad Rahmani (Bombay Natural History Society), Sreedhar Ramamurthy, Mines (Academy of Mountain Environments, Dehradun), Suman Sahai, (Gene Campaign), Bittu Sahgal (Sanctuary Magazine, Mumbai), Salam Rajesh (Manipur Nature Society), Leo Saldanha (Environment Support Group, Bangalore), Priya Salvi (Prakruti, Mumbai), John Samuel (National Social Watch Coalition), Madhu Sarin, Devinder Sharma (Forum for Biotechnology and Food Security), Himanshu Thakkar (SANDRP), Gam Shimray (All India Coordinating Forum of Adivasi People), Samar Singh (Samarpan Foundation), Shekhar Singh (Centre for Equity Studies), Indu Prakash Singh, Neera Singh, Aarshi Sridhar, Bibhab Talukdar, David Thangliana (Editor, Newslink), Malavika Vartak (Housing and Land Rights Network), A.C. Zonunmawia (Centre for Environment Protection)

NEWS ABOUT BOOKS, REPORTS, MEETINGS ETC

Consultation on Dams in NE The first Consultation Meeting on Planned Dams in Arunachal Pradesh was organized by Arunachal Citizen's Right at Itanagar on the Sept 3, 2004. The participants included NEFA Indigenous Human Rights Organisation (NIHRO), Rural Volunteers Centre (RVS), Peoples Movement for Subansiri Valley (PMSV), Takam Mishing Paring Kebang (TMPK), North East Affected Areas Development Society (NEADS), Subansiri Valley Indigenous Peoples Forum (SVIPF), Centre for Organization Research & Education (CORE), AAPSU, Society for Youth Service, Training and Educational Mission (SYSTEM). The focus of the discussion was on the serious process discrepancies during the public hearings on environmental clearance at Gerukamukh, Aalo (Along), and Kayeng for L Subansiri and Middle Siang HEPs to be under taken by NHPC. The meeting raised serious concerns on the issue of non-response from State Pollution Control Boards of Assam and Arunachal Pradesh, and NHPC on the inclusive queries/ memorandum/ public objections of civil society groups. The prominent issues were environmental and social concerns, and Rehabilitation and Resettlement policies of the dam builder authorities. One of the focused issue of discussion was about the traditional landholding pattern and customary laws which governs the ownership over the natural resources of the

indigenous people in Arunachal Pradesh where the Gaon Buras are provided with judiciary powers by the President of India. These respected Gaon Buras of the dam location areas were sidelined in the entire process of acquiring properties for the projects. The meeting also discussed the complete disregard of the issues of downstream affected communities who will be the hardest hit in case of a major disaster in both the proposed projects by NHPC. Participants of the consultation also discussed about the long-standing crisis developed due to the plight of dam-displaced people in Arunachal Pradesh, who had to become refugees because of the Kaptai Dam in Chittagong Hill Tracts in 1964. The meeting resolved to serve legal notices to the State Pollution Control Boards of Assam/ Arunachal Pradesh and NHPC to respond to the memorandums and queries submitted by the civil society groups immediately, and bring these urgent issues to the notice of the President of India, MEF, and to the CM of the govts of Assam and Arunachal Pradesh. The meeting was adjourned with the resolution to continue with a vigorous public campaign on the issues of dams and development. A Legal Action Committee on Subansiri and Siang, with representatives from all the participating organizations of the consultation, was constituted to pursue the resolved actions. (Arunachal Citizen's Right PR 030904)

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By SP Ravi, CG Madhusoodhanan, Dr A Latha, S Unni Krishnan, K H Amitabh Bachan

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QUOTES

The World Bank Ombudsman observed in 2001 (in relation to the Bujagali Dams case) that if a private project's sponsor "wants to maintain a degree of secrecy consistent with a private sector project, perhaps public institutions should not be asked to provide guarantees for or subsidize the undertaking."

(Ugandan Judge Orders Release of Key Document on Bujagali Dam, posted Nov. 22, 2002 on the FreedomInfo.org website by Toby McIntosh, <http://www.freedominfo.org/ifti/worldbank/20021100.htm#1>)

Dams, Rivers & People

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