

# Dams, Rivers & People

## UPDATE ON RELATED ISSUES

**SANDRP**

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#### ABOUT Dams, Rivers & People

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

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

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

## Let's have our feet on Ground, Mr Prabhu

*Indian govt and water resources establishment must go down in history as one of the most rare examples of its kind in the history for deciding the completion date of a project whose feasibility is still not known. Pause for a moment and consider the absurdity of it all: the Prime Minister, The President, the Chief Justice, the Deputy Prime Minister, the Water Resources Minister and the like are all swearing that the project will be completed by 2016 and at the same time informing everyone that only a fifth of the feasibility reports are ready!*

*Here is an article based a letter sent to Mr Suresh Prabhu, Chairman of the Task force on River Linking following a meeting with him on March 10, explaining why River Linking is such a mindless scheme. Reply from him is still awaited. Another letter, requesting him to make all the pre-feasibility and feasibility reports completed so far for the proposed river links has also been sent. This is minimum Mr Prabhu can do to create an informed debate on what the govt is proposing under the river linking plans. No reply to that letter either. Readers who agree may also write to him, also referring to the Freedom of Information Act 2002 passed by the Parliament.*

Ever since Mr Suresh Prabhu was appointed as Chairman of the Task Force on River Linking on Dec 16, 2002, he has emerged as a forceful proponent of completing the river linking task as soon as possible without really admitting that the project is yet to be declared feasible. To his credit, though it must be stated that he clarified that if he finds certain of the proposed links not feasible, he will not recommend implementation of such links. While meeting this author, he went to the extent of saying that if he finds that none of the links are feasible or optimum solutions, he will say so, and resign from his job.

The trouble, though is that very fact that the govt has suddenly decided to go ahead with the project on a misguided suggestion from the Supreme Court raises too many questions if Mr Prabhu can or will be able to see the issues on merit, keeping the feet firmly on ground. Here are the main issues that were pointed out to Mr Prabhu during a recent meeting to show how river linking is not a good idea.

**1. RAIN WATER HARVESTING** To the best of our knowledge, the govt has not done assessment of rainwater harvesting potential for a single basin or sub basin of the country. Without realising such potential, beginning from the village level and going up in terms of larger area, would it make sense to go in for long distance transfer of water through river links?

Someone may ask, what is stopping anyone from rainwater harvesting? Well, the state, the govt is. The govt has told everyone that water is govt business and in fact when communities try and take up local projects, there have been many instances, including one in Alwar where the govt sent them show cause notices. Besides, it would be quite irrational, to put it most charitably, to go for long distance transfer when we have not assessed or realised local water potential.

**2. Information or up keep of existing local water systems** As *Dying Wisdom* and a number of other reports have shown, India has a large network and variety of local water structures and systems. We neither have a credible database to show magnitude or state of these systems. Nor are there confidence-inspiring systems for maintenance of such systems. All available evidence shows that the systems are generally in very bad shape except where communities have maintained the systems.

**3. Existing Irrigation Infrastructure** India has the largest irrigation infrastructure in the world. And as repeated reports from the World Bank and even our own water resources establishment has shown, this system is in very bad state. It is hardly performing anywhere near optimum levels. The irrigation efficiencies are notoriously low at around 35% at best. As mid term of review of 9<sup>th</sup> Plan made it clear, even 10% increase in irrigation efficiency could lead to additional irrigation potential of 14 M Ha. That would still be far from the optimum possible efficiency. Should we not be attempting this on priority basis?

It is true that at some places the water lost performs useful function of groundwater recharge. However, firstly, that is not true everywhere. In fact, at large number of places, such recharge is causing water logging. At last count, water logged and salinised lands thus under producing is around 13 M ha. In any case, there are no known studies to show as to which places is such groundwater recharge is really useful. Moreover, if groundwater recharge is really the objective, than we can have more cost effective ways of achieving that without going for big dams and long distance water transfers. As Planning Commission and other bodies have repeatedly said, we do not have resources for proper upkeep of these systems. In fact, in spite of additional investment of hundreds of crores, the area irrigated by canals is actually decreasing in a

number of states, AP and TN are just two cases documented by the World Bank.

When we do not have resources for maintaining existing infrastructure to get optimum outputs from them, does it make sense to allocate scarce resources for more expensive schemes?

**4. Silting of Existing Reservoirs** India has built some 3600 Major and Medium water projects. These are all silting up at much faster way than what was planned or what we would like. We are unable to arrest the siltation of existing reservoirs. Should we not be allotting additional resources for arresting the siltation rates instead of creating more reservoir capacities at much higher expenses?

**5. FOOD PRODUCTION AND MANAGEMENT** One of the arguments that have been put up in support for river links is that we need to increase our food production to 450 MT by 2050. [That figure needs some scrutiny, but we can take that up later.] Please pause for a moment and look at the present scenario where while on the one hand our godowns are overflowing, there are millions who do not have money to even purchase their share of PDS or antyodaya entitlements. This is direct result of perusing the mega project policies where you create islands of productivity and hope that such increased production will take care of the needs of the whole country. As we all know, about two thirds of India still stays in rural area and mostly depend on agriculture. Every farm, every farmer would benefit from better water management. The "islands of productivity" model has in fact lead to neglect of vast majority, who do not have adequate employment and hence capacity to purchase their food or other needs. As against that, in areas like Alwar where people have done rainwater harvesting over large areas not only out migration has stopped, some of the people who migrated earlier have returned back. The point here that is being stressed is that river-linking attempt is essentially an extension of earlier model that has clearly failed, and we need a different kind of policies & programmes.

Moreover, while our godowns are overflowing in a drought year on the one hand and in states like Punjab there is active state subsidised attempt to wean away farmers from growing foodgrains on the other hand, when there are huge gaps between what is optimum or maximum feasible productivity either on rain-fed or irrigated lands, does it make sense to go in for such projects saying that we need more food production?

**6. SUBSIDISED SUGAR EXPORTS** One of the pillars of arguments in favour of river links is that we need more water for irrigation and agriculture. Even as this argument is being parroted, our godowns are glut with excess sugar and we are in fact subsidising export of sugar on the one hand and trying to find ways to increase sugarcane/ sugar consumption on the other

hand. As Mr Prabhu comes from a major sugar producing state that consumes most of its irrigation water for sugarcane, he surely knows how much water sugarcane consumes and how the state is subsidising the water export in the process? Is such (mis-)use or indirect export of water justified? In such a scene are we proposing river links for more of the same results?

**7. Drought proofing?** Another pillar of river link proposition is that it will drought proof the country. The trouble with this piece of argument is that it ignores the past experience. As a recent CAG report has shown, in reality, after 50 years of dam building, the drought prone areas in the country has gone up! On the other hand, now we have before us hundreds of cases across the country that show that the real solution to drought problem is watershed development and local water systems. Three years back, when country was facing one of the worst drought of 20<sup>th</sup> century, when the Prime Minister was making appeals to the nation to come to the rescue of drought areas like Gujarat & Rajasthan, there were villages in those drought prone areas that did not have water shortage or other drought related problems because they had done their rainwater harvesting over an extended period of time. We do not need more of mega structures if we are *really* concerned about drought.

**8. Flood Protection?** Would the flood prone areas get protection from river links? After five decades of structural attempts at flood protection we today have more annual average flood damages or more annual flood casualties. Secondly, even in a few dams where there is flood cushion provided, the same is not being used for flood protection as the increased power generation or irrigation or water supply requirements take precedence over flood protection designs. There are many instances of dams, which in fact have caused greater damage in downstream areas due to sudden release of large quantity of water.

Moreover, as more than one former secretary of water resources ministry has said, the river link is not likely to provide flood protection because the quantum of water that it will transfer is too small as compared to the flood flows in rivers like Ganga or Brahmaputra in monsoon, when the water transfer is expected to be affected. Moreover, it may be worthwhile to note that while Ganga and Brahmaputra are in floods, the recipient basins are also likely to be flooded in most cases.

**9. Drinking water needs?** Do we need river link for our drinking water requirements? I doubt even the most die hard supporter of the proposal would suggest that if local water resources are properly developed and managed, any area of the country really require such schemes for drinking water needs. If local water resources are destroyed and polluted and when unjustified needs are given free rein as in case, for example in Delhi, then there are some vested interests

who may in fact go to the extent of saying that we need river links to take care of even drinking water requirements!

**10. Hydropower?** One of the figures thrown around by the proponents of river links schemes is 30 000 MW which sometimes becomes 34 000 MW as power generation potential of river link proposal. The trouble with this figure is that it is hardly credible in view of the fact that most of the links are in fact going to *require* huge amounts of power to lift water across natural barriers like ridges that the links will have to traverse. But more pertinently, Mr Prabhu having been a Power Minister knows very well the state of our power scene. There is so much theft, supply side inefficiencies, transmission and distribution losses, end use inefficiencies and so on. While need for more hydropower capacities is being promoted in the name of greater peaking capacities, there is absolutely no attempt to manage the peak or even to assure that the existing hydro capacities are used as peaking stations and not as base load stations. Nor is there adequate attempt to go for generation options other than big dams. Here it won't help to just brush aside this argument saying that if DSM does not work we have to go for supply side options. If DSM has 35% potential, as Mr Prabhu rightly says, we must ask how can we tap this potential through some honest efforts.

**11. Financing resources?** According to 10<sup>th</sup> five-year plan, there are today 159 major, 242 medium and 89 ERM projects ongoing from the previous plans, some of them right from 2<sup>nd</sup> plan onwards. Those projects require over Rs 80 000 crores even by the most conservative estimates. We do not have resources to complete the projects and even the 10<sup>th</sup> plan envisages completing only a fraction of these projects! As mentioned earlier, we are unable to allocate enough resources for maintenance of existing irrigation capacities. Mr Prabhu, you were right in saying that our govt behaves like an emperor who keeps losing old territories even as he tries to acquire new ones. But saying that is enough, you will agree. The point here is that while we do not have financial resources for all this and for our minimum requirements, can we think of setting up restaurants on Mount Everest, even if the cost benefit analysis were to show, but some magic that our economists and consultants are expert at, that it would indeed be beneficial?

One of the ways Mr Prabhu plans to raise finances is by attracting private investment in the 34 000 MW hydropower component of the river link schemes. However, if we look at the experience of Power Ministry in this regard till date, one would be surprised if Mr Prabhu would be too hopeful about this. As a matter of fact, towards the end of his tenure as Power Minister, Mr Prabhu had been publicly saying that it was wrong to

expect any private investment in generation projects until we put our house in order in the power sector.

**12. Navigation Benefits?** Another benefit that has been putting forward in support of river link proposal is navigation benefits. Here one would like to draw your attention to the fact that a number of large dam projects in India have been doing exactly opposite: destruction of existing navigational benefits of rivers. One such destruction occurring right now is the destruction of navigational benefits in Narmada river in Bharuch area by the construction of Sardar Sarovar Dam in Gujarat. In fact, we do not even know (it is doubtful anyone has studied this) in how many river basins the large dams have already destroyed the available navigational benefits. Such benefits or their destruction do not even figure in cost benefit analysis of big dam projects.

**13. Polluted Rivers** Another issue that should cause considerable concern is the polluted state of our rivers, some of them being to the extent of being called toxic streams. In such cases, would it help linking such toxic streams with other not so toxic rivers? Pollution is in fact taking away the availability of fresh water in a number of areas from the hands of the people.

**14. National Commission** The only National Commission on Integrated Water Resources Development Plan (NCIWRDP) that Govt of India set up had assessment of river link option as one of its express terms of reference. That commission, in spite of many shortcomings in its functioning, in the report it submitted in Sept 1999 has been far from enthusiastic about river linking necessity even for our needs upto the year 2050. One is not sure what is Mr Prabhu's source of assessment that India would need 1441 BCM of water by 2050, but that National Commission, after looking at all the possible population and demand scenarios, have said that the higher level of projection of water requirement for 2050 is 1180 BCM, assuming the population of India would be 1581 M by then. In fact the population and demands are likely to be lower than that. We need to establish not only the need for such a proposal, but in fact the whole planning and decision making process has to be participatory, transparent to show that the selected option is indeed the least cost option for the society before we start considering the implications of any proposal.

One of the first useful steps that the govt can take is to make all the available information, studies and reports on river link proposals immediately public. That may help people see the reality of these projects. Based on this information the people can engage in a informed dialogue on this issue. One hopes, in the meantime the govt does not take steps that would destroy our rivers, else the generations to come would not forgive those who initiate steps in that direction.

Himanshu Thakkar

March 14 2003

**RIVER LINK NEWS****HOW OPPOSITION IS MOUNTING****Karnataka farmers oppose**

Farmers in the Dakshina Kannada district of Karnataka has come out strongly against the govt's plan to interfere with the natural course of rivers. As a part of its plan to inter-link rivers across the state the govt intends to turn the Nethravathi eastwards and change the course of a few other westward flowing rivers. Framers dependent on the Nethravathi have also begun to feel that the entire project would deprive them of the water of a river that has been flowing through this region for centuries and has been the main source of sustenance for thousands of families. (BUSINESS LINE 121202)

**Disaster in the making**

This scheme has been subjected to severe criticism since the days of the irrigation commission of British Govt and elaborate plans like Captain Dastur's "Garland Canal" was out rightly rejected quite long ago. Inter-linking of rivers was summarily rejected by the Centre in 1990 accepting the advice of then secretary water resources M S Reddy and array of other experts. A mammoth project to link the peninsular rivers will engender a human catastrophe of an unparalleled magnitude. It will be an utter disaster for the reason when there is substantial water if we care to utilise it frugally and carefully, there is never enough if our sole mode is to use as much as possible and the factors responsible for the Cauvery crisis is traceable to the latter practice. In the disastrous Sardar Sarovar Project lakhs of landholders had to lose their lands due to the network of canals. Of these 23 500 will lose upwards of 25% of their land, with 2000 losing all their lands. Not one these households are considered project affected and eligible for rehabilitation. Linking of all major rivers is tantamount to rejection of the decentralised water systems, which can meet legitimate requirements at cheaper costs. (NEWTIME 271202)

**SC on Dec 16** The Centre has submitted an action plan in the Supreme Court stating that it complete the proposed inter-linking of major rivers by the end of 2016. The plan was placed on 16<sup>th</sup> Dec. before the three-judge bench headed by Chief Justice, G B Pattanaik, by the Attorney General. He also informed the Bench of the constitution of a task force for the purpose. Suresh Prabhu would head the task force as chairman while C C Patel would be the vice-chairman and C D Thatte would be the member secretary. Recording this, the Bench adjourned the proceedings. This was following the SC order of Oct 31 2002. (THE HINDU & INDIAN EXPRESS 181202, DRP 0203)

**Not possible: Chhatisgarh**

The water resource minister of Chhattisgarh has said that inter-linking of rivers is not an easy task. The states like Uttaranchal, Uttar Pradesh, Bihar and others are not agreed on this project, he revealed after attending the national conference of water resource and irrigation ministers. He said that if all states were agreed then Forest Conservation Act would be violated and hence the Inter-linking of rivers is not possible. He said that if the states like Chhattisgarh and Orissa are not agreed on a small issue of Indravati River since many years, then how can it possible, where many states are involved. (RAJASTHAN PATRIKA 081203)

**Maharashtra, Kerala Oppose**

Though interlinking of rivers is becoming an obsession with the govt, and even as the PM defended it at least two states spoke against the project at the 12<sup>th</sup> National Conference of Water Resources and Irrigation Ministers in Delhi. Maharashtra's Minister for Irrigation said "Prime Minister's ambitious project of interlinking of national rivers would not at all prove beneficial to Maharashtra". He asked the Centre to divert water from its westward bound rivers to Godavari and Tapi instead. Alleging that the National Water development Agency was planning to divert water from its territory to adjoining states, he asked the Centre to setup fresh Krishna water Disputes Tribunal. Kerala also urged the Centre not to go ahead with the Pampa-Achanakovil-Vypar link project as the state is already facing water shortage in this basin. Kerala would also oppose plans to link rivers originating from the Western Ghats as part of the Centre's ambitious interlinking project, state Irrigation Minister said. As far as Kerala was concerned, interlinking the Western Ghats rivers sounded "unscientific", he added. (THE INDIAN EXPRESS, HINDUSTAN TIMES, BUSINESS LINE 060203 & BUSINESS STANDARD 140203)

**Step in Wrong Direction: Assam Expert**

The noted Geographer and Head of Dept of Environmental Science, Guwahati University Dr D C Goswami said that the decision of the Central govt was nothing but a step in the wrong direction. The basic flaw in the basin linking proposal is that it has not cared to assess the water requirement status of the so called water surplus basins. Without doing all the exercises seriously it is really incomprehensible as to how they could identify the water surplus areas. According to computer model of Brahmaputra, he said that the ground reality was such that in the so called excess areas like in Assam, there had been a gross

underutilisation of water resources, which might have led to the assumption surplus water. (ASSAM TRIBUNE 100102)

### **Linking rivers can affect ecology, warns WWF**

World Wildlife Fund director General Claude Martin has voiced reservation on the Centre's plan to interconnect rivers and warned that linking rivers like pipelines without looking at the ecological impact could lead to serious repercussions. Dr Martin said a river is an ecosystem and one cannot think of connecting them like pipelines. Doing so could lead to rivers getting dried up or getting filled up with silt and sand. Stating that such engineering solutions are basically flawed, he said a river is more than just water; there is a lot of biodiversity in it for it sustains the livelihood of all species living in and around it. He said that the concept of integrated river basin management had emerged at Johannesburg conference. (THE HINDUSTAN TIMES 100203, RASHTRIYA SAHARA 110203)

### **Better Options available: Bihar**

The water resource minister of Bihar has suggested that the Centre should link the tributaries of major rivers rather than linking large rivers. He claimed that tributaries could be linked within 20% expense of total estimated cost for inter-linking project and 80% problems could be solved. (DAINIK HINDUSTAN 240103)

### **River-link Notion is foolish: Editorial**

The fact that the decision of inter-linking of rivers has come in response to a suggestion to this effect by the Supreme Court does nothing to erode absurd irony of the situation. The suggestion to the Central govt on the inter-linkage of rivers is monumental for potential impact and contentiousness. The govt's assurance to the court that it will achieve this by the year 2016 is grossly delusory or plain stupid. Perhaps both. The govt could have pointed out to the Court that, beginning with the '60s the idea to connect to country's rivers has been talked about at regular intervals. It has been rejected each time, with incremental doubts about the feasibility and viability about the project.... The govt itself has indicated to the Court that even a working figure for the overall project (even on the absence of firm details) would be Rs 5600 B. This implies that the govt is committed to finding Rs 400 B every year for the next decade. There is serious credibility question on such a claim. Moreover, the 10<sup>th</sup> plan adopted by the govt has no provision for this. The govt claims that its engineering exercise will transfer 1500 cubic m of water per second, from the surplus rivers to the Deficit Rivers. On the other hand, official estimate indicate that floodwaters in the Ganga, Brahmaputra, Mahanadi, and

the Godavari add up to 30 000 cubic m at peak flow. This mismatch indicates that the inter-linking plan would be totally incapable of solving the annual flood problems in the country. Govt depts would point out that digging large canals displaces local populations whose resettlement creates all round misery. Hydrological officials of coastal states have already begun to express fears that the curtailment of river flows to the deltas would lead to a large scale ingression of saline water from the sea. Recent experience has shown ample proof that the revival of dead ideas can be dangerous and disastrous. The new lease-of-life to the idea of mega-linking of rivers is just that. (BUSINESS INDIA 6-190103 Editorial)

**Sub-groups to undertake preliminary studies** The first meeting of the task Force on Interlinking of Rivers appointed five sub-groups to study various aspects of the issue. The five sub-groups will study the economic viability, social issues, ecology, engineering and international dimensions. The Indian Institute of Management, Ahmedabad will be an adviser to the task force on organisational structure for implementation of the project. ICICI bank chief K V Kamath has been appointed the head of the sub-group to recommend the financing structure for the project. (THE HINDU 070103, BUSINESS STANDARD 100103)

### **Assam won't allow River Linking**

The Central govt's plan to interlink the rivers, including the Brahmaputra, is poised to snowball into a major controversy in Assam with the Assam Gana Parishad and other regional parties opposing the move, terming it a deep-rooted conspiracy to deprive the people of the State their due share of water. AGP president Brindaban Goswami said "when the Centre constituted Task force, the drought in some states was given priority over Assam's annual scourge" and cautioned, "it was necessary to find out what impact it would have on Assam". He said that there is enough reason to believe that the interlinking of the rivers is aimed at supplying excess water to the dry states by depriving states like Assam. The All Assam Students' Union and Asom Jatiyabadi Yuva Chhatra Parishad too have expressed opposition to the proposal. (SENTINEL 300103, THE INDIAN EXPRESS 310103)

### **W Bengal says 'No'**

W Bengal Irrigation Minister has written a letter to central water Resources Minister, protesting against inter-linking rivers, stating that the said project will pose a "potential threat" to W Bengal. He has sent a report with the letter stating that the Ganga basin is the largest river basin in the country, and since W Bengal is located at the "tail end" of the basin, it is a "deficit state". (THE STATESMAN 230103)

### Private role in river linking: Agenda Exposed?

The Chairman of the task force of river linking has called upon the private sector to participate in the linking rivers across the country. He said the private sector could boost hydro electricity generation, navigation as well as irrigation projects by the participating in this project. The private sector companies can also form user forums and even supply water for these projects. He also mentioned that the govt would not approach any international funding agency to finance the projects. He claimed that the total resource required would be less than 1% of the GDP per year. (BUSINESS LINE 120203)

### Securing budget is a pipe dream

The NWDA budgets the entire project at ₹ 5600 B (\$112 B) at 2002 prices. But Mr Prabhu himself says it could go up to \$200 B. The Himalayan component of this plan would cost Rs 3750 B and the peninsular part,

Rs 1850 B. Where is the investible capital of this magnitude available in the domestic economy? The only option would be funds from international sources. Apart from the fact that this would place a debt of about \$112 on every Indian (where average annual income is \$400-\$800), it also raises question about how this loan is to be returned. Moreover, annual interest on this amount would range between Rs 200 B and Rs 300 B. (NEWSTIME 271102, THE HINDU 020203)

### Govt's Double Talk

Deputy Prime Minister of India has said, "On the one hand, most of the rainwater flows into the sea without being harnessed; on the other, groundwater is depleting due to its over extraction. Proper harvesting of rainwater could solve domestic and agricultural water needs. RIGHT, Mr Advani. Why then, at the same meeting, of all places on rural water supply, you also advocated, "garland of rivers"? Its clearly not confusion that is leading to this double talk? (THE HINDU 061202)

## Famine of Good Deeds and Ideas

Amidst the complete anarchy, the govt even formulated a water policy. The very officials who prepared the water policy, are today engaged in figuring out the most costly, bizarre, and impractical plans of interlinking rivers. Even the tragedy of the raging drought was not able to have such discussions and plans declared not only inappropriate but also antisocial. If supposedly responsible people and ministers waste their time in idle fantasies, then what is left to say?

Digging a well as the fire rages: thus goes an old adage. The fire of famine raged and the government started digging wells. Probably in the proverb, water is found once the well is dug. But this time there was no water to be found when the wells were dug. Water was rushed to Gujarat in tankers, trains and ships. Only aeroplanes were not put into use.

It is the first famine of the 21st century, much touted by our politicians for the past two decades or more as the beginning of the brave new millennium, into which they were steering India. So much noise is being made about the great revolution in information technology, yet famine entered half the country 'quietly' without giving any sign to the great children of the great revolution.

But famine never comes quietly. It is not a guest barging in without having announced the date well in time. When monsoon wrapped itself in September, it rained the information as to which all places had recorded insufficient rainfall. But for a few exceptions neither the sons of the soil nor the collectors bothered to collect this important information. In villages, fields and cities, water was drawn out of the soil just as in the past. The result was that in 6-7 states the water table

kept declining. The level dipped so low that water could not be pulled up even by the might of electricity.

We should not forget that famine never comes alone. The famine of good deeds and ideas precedes it. Here there is no difference between ideas and actions. Action, field work, grassroot-level work are necessary preconditions for well-thought-out planning. Conversely, a good idea comes from a good thought. Neither of them is a one time sprout like a terminator seed.

Even in this famine, there is an example of good deeds following good ideas in the Alwar region of Rajasthan, where an organisation called Tarun Bharat Sangh has been active for the past 15 years. The first good idea which took seed there was to build check-dams to link the small ponds and nullahs. Some 600 villages of that region and the surrounding areas quietly undertook to save every drop of rainwater. These dams revived the waters of five dried-up rivers of the region.

Good ideas led to good deeds and could easily take on the challenge of the failed monsoon. The streams, ponds and wells remained full of water. And yet, the farmers had the foresight to decide to avoid planting such crops which require substantial amounts of water. Only those crops were sown which were resistant to a dry spell. The farmers did lose some money in the process but the area is like an oasis amidst the raging desert and famine. Here the government neither have to rush in water tankers nor carry out relief operations.

In Alwar, it is not just rivers that have been linked to one another but it is people and villages who have been re-linked to their ponds and to their rivers. It is not just

money that was invested in this work, but people's sweat and labour. It is this mixture of good work and good ideas that has kept the famine at bay here.

Anupam Mishra ([riverlink@yahoogroups.com](mailto:riverlink@yahoogroups.com)),  
March 18 2003, From Manushi Issue 118)

### **An appeal by Concerned Scientists of West Bengal Stop River Linking Project**

We are greatly concerned to learn from the media about the intended project of interlinking of rivers proposed by the Govt. of India in response to a suggestion of the Supreme Court of India. It is reported that this mega project will cost US\$ 112 B. Taking into account the usual cost overrun of such water projects the final bill to be paid by the people of India may be \$ 500 B which is larger than the present GDP of India. We urge the Govt. to consider the following before proceeding any further on the project:

1. Make available all information on this project for a transparent and independent professional assessment.
2. What precise parameters does the project use to characterise river basins as surplus or water-scarce?
3. Any withdrawal of water at upper catchment may cause depletion of water resources lower down the river. This may cause severe inter-district, inter-state, inter-country disputes as we witness in the cases of Cauvery or Ganges. There will be a danger of severe social strife that can break the country.
4. How are the environmental damages to be caused by the interlinking project identified and their financial and human costs estimated? A systematic full cost - benefit analysis for the project on ecological changes caused in the total basin may turn out to be economically fatal for the present & future generations.
5. The criss-cross of canals for inter-basin transfer of water will completely jeopardize the hydrological balance of the region creating immense problems of waterlogging and salinization of land.
6. 3600 or more big dams constructed since independence have caused crores of oustees who have not yet been properly rehabilitated. Such a mega project will cause loss and livelihood of lakhs of people, mostly tribals & dalits, creating tremendous social strife.
7. The mountains, glaciers, rivers, deserts, oceans, forests & climate are all connected like a web in a macro-dynamics of nature. We cannot tamper with such macro forces without a proper understanding.
8. The proposal of Govt. of India may go through a series of public hearing throughout India leading to the establishment of an independent commission consisting of geologists, geographers, hydrologists, sociologist & economist to go through the public opinion to assess the best option before the nation to fulfil its justifiable prioritised needs within the parameters of sustainable and equitable development.
9. The skewed Hydrograph of any river does not indicate excess water in the basin. The monsoon flow

flush the sediment load from the riverbed and deposit fertile silt on the flood plain and thereby restore the dynamic equilibrium of the river.

10. The idea of transferring water from so called surplus to deficit areas is hardly possible in view of high infiltration and evaporation of water in dry areas. Such attempts would impair the ecosystem in both the areas.

11. The project, if implemented, would ultimately lead to total decay of the existing river systems, especially deltaic distributaries and invite an ecological disaster.

Samar Bagchi and Kalyan Rudra on behalf of  
some concerned Scientists of West Bengal.

### **EXPERTS REJECT RIVER LINKING PLANS**

At the Jawahrlal Nehru University, a 3-day National Workshop on Fresh Water Issues, with a Round Table on National River Linking Plans on March 31-April 2 2003 came to an end with most of the speakers rejecting the river linking proposals. Speaker after speaker from academia (JNU, DU, Punjab University, IIT Kanpur) dismissed the project and said the claims about irrigation and electricity are based on old data, which are no more relevant. They said it is painful that there is no transparency. Geological Survey of India is also not sharing information. Some of the questions raised at the meeting included: Are citizens, communities willing to have interlinking? Who is to evaluate the performances? Is there any credible evaluation of existing projects? Can advocates of this project be judges of the project too?

The Workshop was inaugurated by the Vice-Chancellor of JNU. The workshop was organised at the request of Mr Suresh Prabhu. The feedback from the workshop is to be sent to him. As to what he will do with the feedback, only Prabhu knows, said Prof. V Subramaniam, School of Environmental Sciences (SES), JNU while concluding the workshop on 2nd April. He added, the National Workshop concludes that no body is favour of this grand plan.

Earlier Prof. Rajamani said, it is bewildering that the govt is not making all the reports done so far on the issue public. Prof. Rajamani asked, where is the water? He said, go down stream there is no water. Even if it is there no state will say it has. Govt has no hard-core data. One speaker of SES said, the plan is based on old data, which does not have contemporary relevance. This idea might be fine only on paper. Dr V Ravi of JNU asked, what about fishery-will it not be destroyed as a result of shifting of water.

When a govt official was asked whether Ganga is a surplus or a deficit river, he had no answers. The question about the basis of claims about irrigation and electricity benefits went unresponded.

Gopal Krishna ([riverlink@yahoogroups.com](mailto:riverlink@yahoogroups.com), 050402)

**Thoughts on Interlinking of Rivers****Can we manage existing systems?**

It is relevant to look in to the Water Vision draft of AP to understand the status of our "temples of Modern India". Irrigation efficiencies of some projects:

Nagarjun Sagar Right bank canal	23%
Left bank canal	33%
Sriram sagar	17%
Rajolibanda	32%
Tungabhadra LLC	46%

The figures in other states are similar. The figures of irrigation capacity generated and utilised are better not looked in to, to avoid making all of us unhappier. The game is simple. We invest Rs 10 out of which Rs 5 has magically disappeared; out of the remaining five rupees, three Rupees did not reach where it had to but created more problems (water logging and salinisation). The strange thing is that those who have invested are happy- because it was not their money. Our irrigation system is a proverbial proud farmer owning a herd of cows but has to buy milk for drinking tea but dreams of buying more cows.

I went to Nalgonda the other day. They regularly drill borewells (about 20-30 per year/ village). It is an accepted practice now to drill borewells taking money from the lender (called borewell agents)- three fourth of the wells give lots of dust while drilling, and water flows from the eyes of the farmer (thinking of how to repay the debt). The "successful" yield water for a few years or until the neighbour drills a deeper well. The well first becomes intermittent. Marginal cost of pumping is zero (Flat rate).

Standing by the side of a field, I wanted to check the yield by filling an empty bottle "scientifically". It took that 5 HP borewell 5 minutes. The farmer had abandoned all but 50 sq m of paddy field out of 2 acres - he is still hopeful. The electricity dept official accompanying me was so disgusted with "wastage of energy"; he thought he should advise the farmer (We "the educated" have fundamental duty, right and responsibility to advise the illiterate farmer of things that we don't know and can't practice) "why can't you do some other activity instead of growing Rabi rice". The farmer replied "Sir, you are educated and wise, you get your salaries. Please leave your job for a year and explore alternatives, then show us the way. We will follow your footsteps".

"Any culture which mismanages land and water is doomed". This is an old lesson, which we have forgotten again and again. More and more villages are joining the bandwagon all across the semi-arid tracts.

With this waging "War for water" some villages have become very permeable, (so many holes in to the rock-

it is a sieve). Farmers have created an excellent system to increase the groundwater recharge I was wondering why do we have to invest money on "Neeru Meeru". By the way, "Water vision" hopes to increase the percolation / recharge from current 9 to 15 %. How this state which has more unterraced cultivated lands than that terraced and bunded (that means lots of runoff), is going to increase recharge is a matter of intellectual debate but how it is going to be implemented is known already- just play with few numbers- no one is hurt, everyone is happy. I have heard a song long back "we are messing up the land, messing up the sea, messing up everyone" or words to that effect.

We are very good lawmakers. Please don't ask about implementation- the "Maya" will be lost. Who is going to bell the cat? The leaders fear that it may be "politically incorrect to implement" these- let the utilities measure agricultural electricity and charge based on consumption first (if they do measure, the last opportunity for juggling the theft and other losses under agriculture will also be gone). Spike Miligan discovered long back that every culture requires a faceless enemy who can't be seen and is far enough. We have ours- so feel safe.

Modern temples of India, green revolution, conjunctive use, interlinking rivers- we feel safe under the umbrella of slogans. Leaders generate slogans "let us develop "unutilised waters" wasted in to the sea".

Is it not high time to think about how to manage what we have rather than invest more to benefit few? Do we want more investments while we can't manage what we have already? Are there really any "unutilised" waters? How reliable is the data on unutilised water resources? Why are many large and medium dams not filling up if there are unutilised waters? If and when we build our interstate "link projects" will they also have the same fate? Does the terrain offer opportunities to divert waters and use it beneficially? Have we run out of ideas to invest on more socially beneficial programmes? Do we want to grow more food while we are unable to distribute it to the needy? Are (over) irrigated crops the only remaining options for us? Can we make farmers grow crops that irrigation systems are designed for? (Or will head enders grow sugarcane while the irrigation designers designed for irrigated dry crops?) Can we manage available water in meaningful ways?

These are uncomfortable questions. Let's try to analyse the situation clearly. Let's not give the same medicine dose to elephant and dog. Lets forget our hallucinations of towing ice from Antarctica and cultivating Annam (rice) in Andhra and see what options still remain and what we can do to cope the crisis.

Gopal Krishna Bhat ([gkbhat@taru.org](mailto:gkbhat@taru.org),  
Edited message on DNRM discussion group 290303)

## The Bhakra Project in North West India: Reality Behind a Legend<sup>1</sup>

(An on-going study conducted for Manthan Adyayan Kendra  
by Shripad Dharmadhikary and Swathi Seshadri)

The Bhakra project in India consists of a huge dam on the Sutlej River, thousands of kilometres of canal network and several inter-river linkages. The dam, built during 1947-63, brought irrigation to about 2.8 M Ha of land in Punjab, Haryana and Rajasthan. Haryana and Punjab saw explosive growth in agriculture production in the late 60s and in the 70s and this was attributed to the Bhakra project. The Bhakra project was credited with single-handedly pulling India out of the dependency on foreign food aid. In the process, the project has almost become a legend in the country and is cited as a justification for any large dam based irrigation project in India.

This study sets out to research the long-term impacts, efficacy and sustainability of the Bhakra project and especially its role vis-à-vis food security of India. The study is also looking at the debates, discussions and the decision-making process at the time the project was being planned to understand the process and factors that influenced the decision to go ahead with the project.

The preliminary findings of the study are startling, and indicate that the benefits and contributions of the project have been grossly exaggerated. They also indicate that while there was increase in agriculture production after the project, this cannot be credited only to the project but the principal factors lie elsewhere.

The first important thing is that popular perception attributes the agricultural growth in Punjab and Haryana to the Bhakra project, whereas the areas irrigated by Bhakra project are only a portion of the total irrigated area of the two states. The study is in the process of estimating the proportions of the areas irrigated by Bhakra project and other sources, and the contribution to food production of each of these.

Further, there is mass of evidence to indicate that the real forces driving productivity were the "chemicalisation" and industrialisation of agriculture - with massive inputs of chemicals, financial subsidies, energy and the explosive growth in withdrawal in ground water due to the enormous increase in tubewells. These groundwater withdrawals are greatly in excess of the recharge, including the recharge from the canals, which has been claimed as one of the important benefits of canal irrigation systems in general and Bhakra in particular. That the principal driving

forces of increasing production lay elsewhere is also clear from the most ordinary rates of agricultural growth between 1950-1967. 1953 was the year when the first irrigation from the project began.

The study also indicates that this system - which provided growth in the initial years - is highly unsustainable and today stands on the verge of collapse. Indeed, in many areas, this collapse is already a reality. The growth rates of food grain production are falling, and have even become negative in case of some significant crops like rice. The soils are highly degraded, and require increasing amounts of inputs of fertilisers. The agriculture system is dominated by just two crops - wheat and rice - and both are becoming financially highly un-remunerative. Attempts since 15 years to diversify the crops have failed due to economic, financial and ecological reasons. The soils have been rendered unfit for several crops.

Vast tracts of lands have become waterlogged and saline. On the other hand, huge areas are facing water levels that have fallen to unviable and unsustainable levels. Groundwater extraction - the very foundation of the agricultural growth in the area - is becoming increasingly difficult and expensive.

All these have led to large number of farmers committing suicide in the most prosperous, agriculturally most developed state of India - Punjab. This, together with the fact that farmers with less than 0.8 Ha are considered virtually landless is a grim indicator of the kind of prosperity that is the result of 50 years of the project. This has been the long-term outcome of the project. Given that the legend of the project derives directly from the agricultural prosperity that it is supposed to have ushered in, it is clear that this has proved to be a short-lived and unsustainable phenomenon.

On the other hand, the reservoir behind the dam is silting up at an alarming rate. Today, over 10% of the live storage and 30% of the dead storage has been lost to siltation. What is alarming is that the silt has formed a hump, forcing most of the new silt inflow to deposit in the live storage. This too has a big impact on the water that can be delivered to the command and this is likely to fall sharply over the years.

<sup>1</sup> The summary of the initial findings were presented as the World Water Forum, Kyoto

Meanwhile - 50 years after the project, the people displaced by it are still seeking justice and proper resettlement. Many settlements do not even have a proper source of drinking water.

Looking at the historical data, a startling fact that emerges is that the dam did not "bring water to water-scarce areas" as is the popular perception. Rather, much of the Bhakra commanded areas were already being served by a vast network of diversion canals, drawing water from the very same river from as early as 1880. Indeed, a large part of the water of the river was already being used in the commanded areas. It is true that some of the very arid and semi-arid lands - in the

SW Punjab and W Haryana - did get the waters due to this project. However, these are some of the very areas that are experiencing the worst impacts in terms of waterlogging and salinisation.

The decision-making process during the period the project was planned and implemented is still being studied.

In sum, it is clear that the project's benefits have been highly exaggerated; its actual role in the agricultural growth was limited. Even this limited growth has proved to be highly unsustainable - economically, financially, ecologically and socially.

Ministerial Declaration at World Water Forum:

### **No clear programme of action from WWF**

A ministerial meeting tackling the world's water problems fell short of producing a clearly defined programme of action in its final declaration, which was released here Sunday. Also missing in the final text seeking to achieve water security was language recognising the right to water as a human right. This was in spite of the UN Committee on Economic, Social and Cultural Rights stated late last year that "The human right to water is a prerequisite for the realisation of other human rights... State parties have to adopt effective measures to realise, without discrimination, the right to water."

Furthermore, the ministerial declaration omitted mention of the need for a global mechanism to monitor the progress being made to solve water-related problems, particularly the lack of safe drinking water and adequate sanitation. The other significant themes in the declaration are the need for community-based

approaches in managing water, the recognition that cooperation is a must among countries that share rivers to avoid future conflicts and that countries must improve the "efficiency of agriculture water use." As it is, the declaration endorsed at the ministers' meeting, which attracted representatives from over 100 countries, identifies key areas where urgent work is necessary. Among them are exploring new ways of financing water projects, including private sector participation.

But NGOs at the Kyoto forum, which ran from 16-22 March, issued a statement to the ministerial meeting denouncing the efforts underway to privatise water. They objected to the development model being given legitimacy at the TWWF that stresses on "the commodification of water and the renewed push for large-scale infrastructure projects that undermine local, participatory, decentralised actions". (IPS (Kyoto), 230303)

**Bankrupt Math:**

### **World Water Establishment Continues to Promote Flawed Solutions to Water Supply Problems**

The glaring mismanagement of the world's water is one of the great social and environmental tragedies of the 20th century. US water analyst Peter Gleick estimates that if water and sanitation services do not radically improve, as many as 135 million people will die from water-related disease over the next 20 years.

So what kind of radical improvement would it take to stop this deadly scenario? The world water Establishment has put forth more big infrastructure projects and privatization as the core of their proposed solution to this crisis. This approach which will only worsen the problems they seek to solve and hinder the

adoption of real solutions that are both available and affordable. The real solutions to this problem will not be simple, but neither does it lend itself to a solution that relies on an army of water-privateers taking over water supply around the globe.

It is time to question their assumptions at every level, and to press for an approach that promotes local, small scale initiatives. Herein, we re-calculate the water establishment's "gloomy arithmetic" of water supply, and find it rife with error.

Patrick McCully (For full article, see World Rivers Review, Feb 2002)

## Pesticides in YOUR bottled water

*In early February, CSE broke a remarkable investigative story exposing the dangerous pesticide levels in bottled water in India. The story was testimony of the failure of the various govt agencies, the industry, the consumer action network and even media. CSE needs to be congratulated for this remarkable story. The media response was remarkable. The various govt agencies contradicted themselves, but some changes are likely. The industry response has been mostly misleading and untruthful, to put it charitably. The moot point of is that very few people have bothered to understand or note that the trouble is much bigger. The very source of the water for the industry is highly polluted and most people in India depend directly on that source. The criminal conspiracy of silence about the safety of vast majority of people has escaped the notice of most. That, as they say, is another story. Here we have only put together the responses of various players, which are self-revealing.*

**The Case** The Pollution Monitoring Laboratory of the Centre for Science and Environment had conducted a study and revealed that, most of the brands of packaged water available in the country contain pesticides significantly higher than permissible limits. It can cause serious physical impairment ranging from damage to the central nervous to lung cancer. Samples of as many as 17 brands of packaged drinking water sold in and around Delhi were tested by CSE. The PML randomly bought two bottles of each of different brands from colonies and shopping areas and tested the 34 samples with a widely and internationally used methodology, approved by the United States Environment Protection Agency for pesticide detection in drinking water. The Test results were compared to the European Economic Community's directive on drinking water called 89/778/EEC. This standard provides 62 parameters on the "quality of water intended for human consumption", and is used as the norm all over Europe. The directive parameter number 55 sets the limit for how much of a particular pesticide, and all pesticides taken together, can be allowed to exist in drinking water. It sets the maximum permissible concentration at 0.0001 mg/l for each substance and at 0.0005 mg/l for the sum of compounds.

The study says that while packaged water brands in Delhi have 36.4 times higher total pesticides content than the permissible limits, Mumbai brands have 7.2 times the standard content. The pesticides, which were tested for organochlorines, organophosphorus, chlorpyrifos, malathion and DDT, among other compounds. The EEC directs that the maximum residue limit for total pesticides is 0.0005 mg/l and 0.0001 mg/l for single pesticides. This revelation has put serious question mark over the reputation of the Bureau of Indian Standard. The bottled water industry in India is estimated at about Rs 10 B and is growing at a rate of 40 %.

The highest pesticides content was in Hello Brand (45 times higher than the prescribed EEC limit). And other brands Mcdowell (43 times), Paras (31 times) Volga (29 times) and Bisleri (14-30 times). Packaged natural mineral water brands Evian (Imported from France),

Himalaya and Catch were the top three brands in terms of total pesticides content. The top seller, Bisleri was the third worst brand out of the total of 17 brands checked.

Once the results were in, the PML decided to check the quality of water being used by the manufacturers as their raw material. PML resource person went to plants – located in and around Delhi – to collect water from within the plant premises. They were not allowed to inspect the Aquaplus, Bailley, Hello and Kinley Plants. Most companies use borewells as source of water.

**Govt Response** The BIS regulations for drinking water says pesticides should be "absent" for packaged and for mineral water it should be "below detectable limits". The BIS has separate certification for the packaged mineral water (IS 13428) and packaged drinking water (IS 14543). The BIS comes under the Ministry of Consumer Affairs (MoCA). The Consumer Affairs Minister had ordered an investigation by a high level committee. The committee had to examine whether the BIS norms and tests were adequate and if they are being enforced properly.

Scientists and experts of the Dept of Science & Technology have confirmed the findings of the CSE about high levels of pesticides in bottled water. The dept has recommended standard procedures to monitor the quality of water and fix responsibility at various levels including packaging. The Union Minister for Science & Technology emphasised that the standard prescribed by the BIS for packaged and natural mineral water under the Prevention of Food and Adulteration Act is inadequate. These standards simply say that pesticide residues should be below detectable limits. In a letter to PM the Ministry of Science and technology suggested (i) the BIS standards for packaged drinking water and natural mineral water need to be set up into more precisely defined and quantitative standards; (ii) responsibility needs to be fixed at different levels, including at packaging level; (iii) standard procedures for monitoring of quality need to be set up; and (iv) correct, accurate and quantitative labelling needs to be evolved and mandated.

The Union Health Minister said that the water available in the market so far was meeting the BIS criteria. As such, it was in consonance with all the legal requirements. That no action could be taken against the manufacturers. She said the methods and standards used by the CSE to test the samples of bottled water were more "sensitive" and in line with the international standards and India should adopt these standards.

According to Mr Wajahat Habibullah, secretary consumer affairs, it was decided to go with WHO parameters, because aligning with EU would increase the cost of the end product. The packaged drinking water being sold in the market is absolutely safe for humans despite the presence of pesticides according to the BIS. This is because, under the WHO/CODEX guidelines there is something called "acceptable daily intake."

The Director General of BIS had requested Union Health Ministry to amend the specifications of packaged drinking water and mineral water in line with amendment carried out in BIS specifications, which are as per EU Norms. The BIS has affected a change in its standard for packaged drinking water. The amended code says packaged water will have to be tested for 32 pesticides; individually, the quantity of these pesticides can not exceed 0.0001 mg/l and total pesticide residue should be less than 0.0005 mg/l. It says groundwater will have to be tested, but it does not elaborate and licensee manufactures of bottled water will need permission from CGWB. The 32 pesticides include malathion, DDT, parathion, BHC, fenitrothion, carbaryl, aldicarb, methyl parathion, carbofuran, dimethoate, phosalone, monocrotophos, ethion, dichlorvos, propoxur, diazinon, chlorpyrifos, fenthion, phosphomidon, endosulphan, cypermethrin, deltamethrin, fenavalerate, permethrin, atrazine, simazine, captafole, acephate, dithiocarbamate, metalaxyl, fosetylal and lindane. Mr Sharad Yadav said that, "The amended standard have been drawn upon what the committee considered the world's best standard."

The MoCA has constituted an inquiry committee under the chairpersonship of Satwant Kaur Reddy to investigate whole issue. The terms of the committee has been extended two times and yet to submit final report to the MoCA.

The BIS has suspended the license of 20 packaged drinking water bottling plants run by some of top companies after samples showed high levels of pesticide, officials said. The companies are Pepsico India, Bharuch; Bisleri International, Bangalore & Noida; Kothari Beverages, Thana; Ion Exchange, Mumbai; Vaibhav Aqua, Mumbai; Sadul Mineral Water and Soda, Jamshedpur; Vaishali Mineral Water, Hazipur; Surat

Beverages, Dadra, and Maharashtra Manufacturing Corp, Thana; Sri Agencies, Secunderabad; Avon Food & Beverages, Hyderabad; Annam Associates, Eluru; Pallavi Industries, Visakhapattanam; Tora Purified Water (Spring up & Rainbow Brand); Rainbow Mineral Water, Sattur; Sri Springs, Eluru; Ganga Mineral Water, Poonamalli and Udayak Agro Products, Guwahati (Parle Balley brand). Companies are not allowed to sell packaged water without ISI mark. The MoCA also issued warning letters to two units – the Hindustan Coca-Cola Beverages plant at Khera and Surbhi Milk Food plant at Kalol.

**Industry Response** Amit Mitra, the Secretary General of FICCI and FRAC, said that groundwater contamination in India was far higher than the European countries, so it stood to reason that bottled water in India would have more pesticides than European bottled water.

According to Kinley Brand, pesticides residue in groundwater in India is a national problem, however the brand meets more than the prescribed requirement of the govt. Bisleri Chairman said the brand meets BIS norms. "We don't have pesticide. We don't know what the study is about and how they have done it." According to Pepsi Foods official, "We follow WHO prescribed standards. No residual pesticide has ever been detected in the product as per our tests."

**Rejoinder** Ms Sunita Narayan, director of CSE, wrote a letter to Union Consumer Affairs Minister saying the EU norms were used because they were the only available and established norms for packaged and mineral water. She added that CSE did not recommend the use of EU norms but only said that more stringent quantifiable norms should be imposed by the govt. "The WHO has guidelines for only five of the 20 pesticides tested in the bottled water and is completely silent on deadly pesticides like chlorpyrifos, endosulphan, phosphomidon and malathion," said CSE.

(Down to Earth 150203, BUSINESS STANDARD, THE HINDU, THE INDIAN EXPRESS, THE ECONOMIC TIMES, THE TIMES OF INDIA, BUSINESS LINE, THE HINDUSTAN TIMES, THE TRIBUNE, Rajya Sabha Questions, 050203, 060203, 100203, 130203, 140203, 150203, 200203, 260203, 040303, 070303, 100303, 110303, 170303)

**PIL for control over bottled water price** A PIL in Delhi High Court has sought to control and fix a reasonable price for bottled water by notifying it under the Essential Commodity Act in public interest. The PIL by Free Legal Aid Cell also sought Court directions to ensure that drinking water was not packed in low standard plastic bottles causing injury to public health. It asked the Delhi govt, MCD, NDMC and DJB to arrange for and manage free drinking water facility in various public places, colonies and populated areas. (BUSINESS LINE 021202)

## DAMS

**NRIs to fund the Pulichintla project?** The NRIs hailing from Krishna, Guntur, Prakasam, Nalgonda and parts of W Godavari district have come forward to contribute for the construction of the Pulichintala project in Andhra Pradesh. The Telugu Association of South California met and decided that if the state govt floated bonds for the project they would buy in large quantities. ([www.projectsmonitor.com/detailnews.asp?newsid=6249](http://www.projectsmonitor.com/detailnews.asp?newsid=6249))

**Wazirabad dam height to be raised by 2 m** To address water scarcity in Delhi, DDA has decided to raise the height of the Wazirabad dam by 2 m. The feasibility study is being conducted by IIT-Delhi. (RASHTRIYA SAHARA 091102)

**UKP** Bagalkot town is slowly getting submerged by the Almatti dam. The Almatti dam was raised in 1996 to 509 m, submerging 6 villages fully and 10 others partially. In 1997, as the level increased to 514 m, 145 families of Bagalkot were shifted to Navanagar Township, where people even now are miserable. There is as yet no electricity or water supply. In 2000, when the reservoir level reached 515.2 m, 400 more families had to be moved out. Now, the stored water level is 519.6 m and 89 488 people across 136 village are affected. The Upper Krishna Project after completion is expected to irrigate 2.5 M Ha in N Karnataka and have 1200 MW installed power capacity. It will displace over 2 M people. Apart from flooding Bagalkot Town, the UKP will submerge 176 villages. (THE INDIAN EXPRESS 071102, DRP 0202 p. 17)

**Cost of delay in SKDP** As the Sahpur Kandi Dam Project in Punjab has not been completed; the Ranjit Sagar Dam at present generates only 100 MW against installed capacity of 600 MW. The Punjab govt is toying with the idea of handing over the project to a multinational company. (THE TRIBUNE 021202, DRP 0202 p. 16)

**'Big dams bring miseries to people'** The International Consultation on Water Resource Development in South Asia and the Report of the WCD have demanded a legally enforceable right to information regarding planning, decision-making, implementation, operation and decommissioning of all water and energy resource projects. Speaking at the end of the regional meeting, Medha Patkar, member of the WCD, said, "Having reviewed and discussed the situation in the South Asian countries, we recognise that many of the existing development policies in the region are undemocratic, anti-people, anti-environment and anti-life. They favour the elite and corporate interests." South Asia has one of the largest numbers of existing and planned big dams, reservoirs and irrigation channels in the world. These have brought untold misery to the people and extensive and irreversible environmental destruction beyond

compensation, says the declaration paper. About 200 participants from mostly Nepal, India, Pakistan, Bhutan and Sri Lanka had gathered in Kathmandu to review water resource policies and projects. (The Rising Nepal 111202, DRP 0202 p. 9-10)

**Norwegian assistance for Dam Study** The Norwegian Agency for Development and Cooperation has funded Rs 12 M "Investigation of Geological Hazards in Dam Reservoirs for Safety of Downstream Structures", a project of the Central Soil and Materials Research Stations under the Ministry of Water Resources as part of India - Norway bilateral development cooperation. CSMRS has already completed two projects on 'tunnelling Technology' (1993-6) and Environmental Geotechnology (1997-2000) under institutional cooperation with Norwegian Geotechnical Institute. (THE HINDU 131202)

## NEWS FROM THE NARMADA VALLEY

**Properties of Maheshwar dam attached** The district administration of Khargone has seized and attached the immovable properties and 326.7 Ha of land of the S Kumars promoted privatised Maheshwar HEP in MP, including all dam site lands, on behalf of the MPSIDC under the MP Public Money (Recovery of Dues) Act 1987 and the Madhya Pradesh Land Revenue Code, 1959. This attachment was for the recovery of a short-term loan of Rs 447.5 M taken from the MPSIDC by the S.Kumars in 1999-2000. This loan was taken in the form of Inter-Corporate Deposits by the Induj Energetech Limited (formerly S.Kumars Power Corp) – of which the the Shree Maheshwar Hydrel Power Corporation Limited is a 100% held subsidiary, for the purposes of financing the Maheshwar Project. Both Induj Energetech Limited and Shree Maheshwar Hydrel Power Corp Limited are group companies of the S. Kumars. This attachment of the movable and immovable properties of the Maheshwar Project and recovery actions against the Induj and SMHPCL has confirmed and vindicated the concerns consistently raised by the NBA about the large-scale abuse of public funds by the S.Kumars and grave financial irregularities in the Project and the multiple instances of diversion of public funds and wilful defaults by the Promoters.

**REC refuses to fund Maheshwar HEP** The attachment of the Project assets has come on the heels of the formal refusal of the REC to participate in the Maheshwar Project as a strategic partner. The REC had been approached by the S.Kumars to participate in the equity of the Maheshwar Project but after studying the Project as well as the issues raised in the legal notice served by the NBA to the REC, they declined to participate in the Project. (NBA PR 311202)

**Power generation** MP is expecting to get power from Sardar Sarovar from Sept 2004 and from Indira Sagar

project Sept 2003. NHDC has also started the construction of 520 MW Omkareshwar HEP. At present, generation from 405 MW Bansagar project has started, while 90 MW is being generated at Rani Awantibai Sagar project. The construction work of fourth unit of Bansagar project with a capacity of 20 MW is underway and is expected to be completed soon. Plan has also been finalised for setting up of five HEP in the upper Narmada area by NVDA. This includes 62 MW Basania HEP, 35 MW Rosra HEP, 20 MW Raghavpura HEP, 20 MW Chiknihiranpur HEP and 20 MW Gopalpur HEP. Principal Secretary, NVDA said that a study was being conducted to explore the possibilities of power generation from the tributaries of Narmada. (Central Chronicle 281102)

#### The Proposed large dams at upstream of Bargi Dam

	Project	Type	Status	Capacity	Cost (M Rs)
1	Singarpur	HEP	Proposed	60 MW	1657.20
2	Rosra	HEP	Proposed	35 MW	320.00
3	Raghavpura	HEP	Proposed	20 MW	266.40
4	Upper Narmada	Irrigation	Proposed	12 800 Ha	585.50
5	Budhner	Irrigation	Proposed	9 500 Ha	598.00
6	Halon	Irrigation	Proposed	11 730 Ha	450.00
7	Matiyari	Irrigation	Completed	10 110 Ha	300.00

The Feasibility Reports are under progress. 70 % of the people living up stream of the Bargi dam are Gond tribals who are totally dependent on agriculture. The govt has not informed the people to be affected due to these projects. (Lokmat Samachar 070103)

**People Resolve to Assert their Right to Land** As part of the strategy of silencing the voices of the SSP affected people who assert their right to land for land rehabilitation, the Madhya Pradesh govt has used the police to forcibly acquire agricultural lands for building relocation sites, while destroying the standing crops. The brutal incident took place on 9 Dec 2002, in the fields of Bhavaria village in Dhar district. The police arrived early in the morning with bulldozers and tractors and destroyed 15 Ha of standing crops belonging to farmers of the Bhavaria village. The protests of the villagers against this atrocity was met with beating and arrests. To protest against this brutal assault on people's right to land, hundreds of people gathered in the destroyed farms and conducted Jan Sunvai and mass action to restore the 15 Ha. Mr Sunil and Mr Rajiv from the Indian People's Tribunal and Ms Meenu Jose from Communalism Combat presided over the Jan Sunvai. After the meeting, people from different villages united in one voice to assert their rights by doing shramdan to level the land and make it cultivable again. (NBA PR 1202)

**Govt unconcerned on leakage from Bargi gates** Substantial leakage is taking place from the gates of Bargi Dam in MP. Authorities say that the leakage is a 11-years-old-matter and no efforts has been made to

stop the leakage. The leaking flow is around 9.04 cusecs and from security point of view it is a very serious matter, say sources from the dam. Out of 21 gates, leakage can be seen in 19 gates. (CENTRAL CHRONICLE 161102)

#### HYDRO PROJECTS

**No Private sector offer for Sawra-Kuddu HEP** The HP Cabinet has decided that the 144 MW Sawra-Kuddu HEP will be executed jointly by four states of the BBMB and the HP Govt. The HPSEB would work out modalities for the venture. Earlier, the govt had decided to execute the project through International Bidding in the private sector but *there was no response from private sector*. (THE TRIBUNE 011202)

**Almatti height may hit AP power generation** According to an International Consultant, SNC Lavalin, which conducted simulation studies for Almatti reservoir, raising of the Almatti reservoir level in Karnataka may reduce power generation at Srisailem and Nagarjunsagar HEPs in Andhra Pradesh by 1000 MU per year. The APGenco sources said that the simulation studies were based on the inflow data for 1971 - 2002 in Krishna River. The Srisailem reservoir had received lowest-ever inflows this year. Raising of the Almatti reservoir level from 515.5 m to 519.8 m leading to the storage of additional 60-tmc ft of water had also contributed to the poor inflows. (BUSINESS LINE 011202)

**NJPC is now SJVN** The 1500 MW NJPC has been renamed as the Sutlej Jal Viduyut Nigam Ltd. The change of name is in line with the strategy to take up more projects in the Sutlej basin. The SJVN will shortly sign an agreement with the HP govt for execution of the 439 MW Rampur HEP to utilise the tailrace waters of the NJPC. Other projects being considered are the 400 MW Thopan Powari HEP and the 400 MW Shongtong Karcham HEP. (THE TRIBUNE 051202)

**Karcham HEP** The 1000 MW Karcham Wangtoo HEP in Kinnaur district in HP, it is claimed, have been granted Environmental clearance. The DPR of the project re-submitted in view of flash floods in Sutlej in July 2000 is still awaiting CEA clearance. The Rs 37.84 B project is under agreement with JP Industries in Nov 1999 and is expected to generate 4228.5 MU power annually once completed by Nov 2009. (THE TRIBUNE 171102)

**Central counter guarantee for J&K HEPs?** The Centre has agreed, it is claimed, to consider the Counter Guarantees for the Baglihar and the Sawalkote HEPs, compensation of loss suffered by J&K on account of the Indus Water Treaty and taking up works of HEPs transferred to NHPC expeditiously.

➤ **Baglihar** The govt has also decided to float public bonds worth Rs 27 B to complete the first phase of

Baglihar HEP, estimated to cost Rs 46 B. The project has so far received Rs 14 B. On another front, the eight day strike by the workers in the Baglihar project ended with the agreement between JP Industries' Sameer Gaur and workers. Agreement includes release of land compensation to the local villagers, employment to the local people, compensation to those injured or dead during construction. (THE TRIBUNE 011202, 031202, THE HINDU 071202)

**Approval for Parbati II** The Central govt has approved the 800 MW Parbati HEP II in Kullu district of HP. NHPC has been asked to complete it by March 2007. NHPC is soon expected to submit the DPR for the 231 MW Chamara III. (THE TRIBUNE 101202)

**Anandpur Sahib HEP II stuck** The 36 MW Anandpur Sahib HEP II has been hanging fire since its inception in 1984. The project was estimated to cost Rs 1.5 B initially but more than 1 B has already been spent on machinery and civil works. If the price of the land is also included the total cost of the project would come out to be more than Rs 2.5 B. The area of the project is over 80 Ha. The project was abandoned after a controversy over SYL canal erupted as the project is linked with the SYL, though experts feel that was not necessary. (THE TRIBUNE 291202)

**HEPs under construction in MP** MP deputy CM said in the assembly that the HEPs under construction in MP are: Bansagar (425 MW), Madhikhera (60 MW), Rajghat (13 MW), IDSP (1000 MW), Omkareshwar (520 MW), Maheshwar (400 MW), Radhopur (20 MW), Rosra (35 MW), Shigarpur Vasania (60 MW). (Central Chronicle 081102)

## DAMS IN NORTH EAST INDIA

**Big dams on Brahmaputra pose high risk to Assam** According to Dr Malik Kar, an expert on the Flood Hazard and Disaster Management, if big dams are constructed in upstream areas of the river as in Arunachal Pradesh, Nagaland, Manipur and Bhutan it would cause high risk for Assam as the lower Brahmaputra valley has very low slopes and high density of population. He maintained that small dams would be able to reserve sufficient water for harnessing significant hydro electricity and would also remain safe. Commenting upon the 6 proposed dams on the river Kapili and its tributaries mooted by the CEA of generate 335 MW, he expressed doubts over the success of such dams as the area has limestone topography that would, in every likelihood, cause leakage of water. The chance of survival of big dams in Arunachal Pradesh is bleak as the soil is very soft in the area and the area falls under high seismic zone coupled with very high rainfall. In case of collapse of such dams, there is very possibility, of sudden floods in downstream areas besides the surging water will leave loads of silt and sands, creating additional flood hazard. (ASSAM TRIBUNE 131102)

**Subansiri HEP yet to get clearance** According to NHPC, the DPR of the 2000 MW Subansiri Lower HEP along the Assam-Arunachal border has been submitted and yet to receive clearance from the ministry of Environment and Forest. The estimated cost of the project is Rs 74.68 B at March 2001 prices, to be completed in 6 years. NHPC has claimed that the dam is so designed that it will be able to cope with a quake of 9 magnitude on the Richter scale. NHPC also claimed that experts from Forest Institute of Arunachal Pradesh and NEHU have been involved in the Environmental impact assessment. (ASSAM TRIBUNE 141202)

## SOUTH ASIA

**Nepal's Hydropower Crisis** At the time when Nepal and India were negotiating for power trade, Maoists had attacked a transmission line tower that connected three major power plants, Khimti, Bhote Koshi and Sunkoshi, to the national grid in Nepal, destroying the 132 KV transmission line tower situated at Sukute of Sindhupalanchok in Nov. This attack had isolated these three power plants, robbing 100 MW of power from the national grid. On the other hand, construction of Middle-Marsyangdi, the third largest HEP of the country, is likely to stretch for one more year, due mainly to escalating domestic violence and worsening security condition of the country. The construction works of 70 MW project, with a capacity of generating 422 MU of electricity annually was started one and half years back and was expected to be completed by the end of 2004. The Maoists also have threatened to stop this HEP. (The Kathmandu Post-Nepal 291102, The Himalayan Times 301102 & Nepal Samacharpatra 111102)

**Nepal River management policy draft prepared** The Ministry of Water Resources has prepared the draft of a first-ever 'River Management Policy' to make river control initiatives more effective and to reduce water-induced disasters in the country. The policy proposes to bring better co-ordination between different govt organisations working to prevent water-related disasters, including the Dept of Water-Induced Disaster Prevention, Home Ministry and Dept of Soil Conservation. The draft will allow the private sector to manage rivers and carry out economic activities in the area where it works to save lands from water-related disasters. (Kathmandu Post 061202)

**Indo Nepal power deal** A high-level committee formed to investigate the quantum of electricity the Nepal Electricity Authority can export to India has finalised the volume and price of electricity that the state utility could export to India during different seasons of a year. The committee has decided to propose Rs. 4.80 (Indian Rs 3) for a unit of electricity "for all seasons" and Rs. 4 (Indian Rs 2.50) for winter season. Since most of Nepal's HEP are run-of-river types, they can't generate

a fixed amount of electricity all the year round. But India has shown interest to buy fixed and uninterrupted supply of electricity from Nepal to its northern states. According to figures made available by the utility, the "peak load" in the NEA's system currently hovers around 420 MW, but there is a surplus of energy equivalent to nearly 80 MW. The NEA's power system, however, would need 625 MW by 2006, given the average annual consumption growth rate of 9 %. Under the existing PPA, the two countries can exchange up to 150 MW electricity, and the current price for a unit of electricity stands at NRs 4.32. The NEA has been paying over 6 US cents for a unit of electricity generated by the IPPs like the 60 MW Khimti and 36 MW Bhote Koshi HEPs and experts question selling of that electricity to India at lower rates. 82 % of the Nepalese people, most of them living in the rugged terrain or rural hinterlands of the Terai and the high mountains, do not have access to electricity as yet.

➤ Meanwhile, Power Trading Corp of India has entered into an agreement with Powergrid for construction of the Indian portion of the 132 KV double circuit line from Anandnagar in UP to Butwal in Nepal to enhance Indo Nepal Power Exchange. (Kathmandu Post 221102, THE HINDUSTAN TIMES 131202)

**PPA for Lower Indrawati** Nepal Electricity Authority and Sunakoshi Hydropower Company has signed a PPA for 4.5 MW Lower Indrawati HEP for 25 years. NEA will buy electricity at Rs 4.25 per unit in dry summer season and Rs 3 in the rainy season. The agreement quotes 6 % rise in the price every year. The construction of the \$ 10 M HEP will start in 2003 and is expected to finish in 2005. NEA has already bought 121 MW of electricity through PPA with private sector, including 5 MW Mailun Khola, 10 MW Langtang Khola, 2.6 MW Sunkoshi and 1 MW Barmachi. (Kantipur Daily-Nepal 131202)

**Norway support for 2 HEPs in Nepal** The Norway govt is providing Rs 360 M, of which 140 M will be used for conducting the feasibility study of 250 MW Tamakoshi Project and 220 M for rehabilitation of the 12.3 MW Jhimruk HEP that was destroyed by Maoist rebels 8 months ago. Butwal Power Company started power generation from Jhimruk project in 1994. Intercraft, a Norwegian Company, initially had 20% share in BPC but now it has only 8 %. BPC has signed an Independent PPA with NEA at Rs 3.80 per unit of electricity. A previous study by NEA has indicated that the Tamakoshi HEP could be one of the cheapest in Nepal, requiring \$ 1100 per KW. (Kantipur Daily 071202)

**WB scraps 9 irrigation projects in W Nepal** "The WB came up with the decision since the construction works on several canals could not be completed on time in Nepal due to lack of explosives," a source at the Regional Irrigation Directorate in Nepal said, though some of these projects under the Nepal Irrigation Project were nearing completion. The WB is the main

donor for these projects. The security forces have tightened their grip on development projects regarding use of explosives. The 25 irrigation projects under the NIP that started with the inception of the Ninth Plan year should have completed by July next year. Sources at the NIP, however, claimed that the govt on its own hopes to complete 16 of these projects. Some projects that the WB decided to scrap are Lungdimadi Irrigation Project, Gita Chaur Irrigation Project, Gajulfagam Irrigation Project, Lodhachaur Irrigation Project, Kalagadh Irrigation Project, Kalapani Irrigation Project, and Dofan Jyula Irrigation Project. NIP launched dozens of irrigation projects in 40 districts across the country with the participation of the consumers' committees, with the consumers' committee bearing 15 % of the investment cost in the plain belt, 12 % in the hilly region and 7 % in the mountainous regions. Meanwhile, a total of 104 irrigation projects were completed in the last fiscal year that provided irrigation facilities to 17 256 Ha. (Kathmandu Post 031202)

**Japan grant for water supply project in Nepal** The govt of Japan has agreed to extend grant of \$ 7 570 000 to Nepal govt for the execution of the project for improvement of water supply facilities in Kathmandu Valley. (KATHMANDU POST 081102)

**WB not to fund Mangla Dam height increase** The WB is not funding the proposal and have written letter to this effect to Anti Mangla Dam Extension Action Committee. The WB's Country Director for Pakistan have stated that although the WB played important role in financing the construction of the Mangla Dam in 60's, under current circumstance the bank is not funding the project, which is against the interest of the people.

➤ **Kalabagh Dam after consensus** The Federal Minister for Water and Power said that all controversial irrigation projects like the Kalabagh Dam would be launched only after a national consensus, and a guaranteed share for the NWFP in the net profit of HEPs. (The Dawn-Pak 261102)

**Irsa rejects Punjab's Mangla water stand** The Indus River System Authority of Pakistan has rejected Punjab's claim of exclusive rights over Mangla Dam water after raising its height. All the three provinces, particularly Sindh, had strongly objected to the Punjab govt's claim to reserve whole storage capacity of Mangla Dam for utilisation in Punjab after raising its height. The govt has launched Rs 53 B project for raising of the Mangla Dam height by 40 ft. This replacement project is to reclaim country's storage capacity by 3.5 MAF, which has so far been lost due to silting and sedimentation. The Punjab govt has been informed that all western rivers - Indus, Jhelum and Chenab - were part of the Indus system that also comprised five barrages and eight link canals. The whole 114 MAF water in three rivers had to be shared by the four provinces according to apportionment

agreed to under the 1991 accord. Due to excessive sedimentation inflows in the river water, all the three storages - Tarbela, Mangla and Chashma - have lost around 30 % of their storage capacity. (Dawn 051202)

**WB threatens to halt loan to Pak** The WB has threatened to halt disbursement of loan to Pakistan for a 1400 MW Ghazi Barotha HEP. The WB said that the country has failed to implement agreement to protect the environment and settle displaced people. The WB has already disbursed \$ 350 M loan for the project due to be completed in Oct 2003 at a cost of \$ 2.2 B. (THE TIMES OF INDIA 201202 & POWERLINE 1202)

**Pak Govt urged to shelve Thal canal project** The Sindh water conference held under the aegis of the Sindh Water Committee, demanded the govt to shelve the greater Thal canal project. A resolution, adopted at the conference, said that the canal was illegal, unconstitutional and immoral and it would convert Sindh into a desert. In another resolution the conference sought the attention of UN, SAARC, OIC, Amnesty and other organisations to solve the long-standing water dispute between Sindh and Punjab. (Dawn 311202)

**Pak: Neelum-Jhelum project** Pakistan has decided to start construction of Rs 87 B 960 MW Neelum-Jhelum HEP in Kashmir to maintain its legal rights over the Jhelum River. If the project is not started immediately, Pak would be obliged under the 1960 Indus Waters Treaty to allow India to divert Jhelum waters for power generation. WAPDA has offered to make available Rs 10 - 15 B out of its own resources and has asked the federal govt to arrange similar amount to start the project in the current fiscal year. The WAPDA has now prepared even the documents for inviting letters of interest from the private sector to construct the project. India had requested Pakistan to allow the diversion of Jhelum waters in the Indian Kashmir for its proposed Kishanganga HEP. It had assured that there would be no storage and the diverted waters would be re-routed into the Jhelum through Wullar barrage. Pakistan has already put India on notice to address its concerns regarding the 450 MW Baglihar HEP on the Chenab. (Dawn-Pak 021202)

**Drought in Pakistan** Five districts in Sindh province of Pakistan and 3000 human settlements are reeling under a prolonged drought. 194 798 families living in the districts of Thar, Mirpurkhas, Sanghar, Dadu and Thatta have borne the brunt of the dry spell. The total population of this area is 1.38 M. (DOWN TO EARTH 151202)

**Arsenic poisoning in Bangladesh water** According to a paper published in the journal *Science* there is widespread presence of arsenic in well water in Bangladesh. The WHO has called it "the largest mass poisoning of a population in history" and said it might be

the result of excessive use of groundwater. It is believed that river sediments from the Himalayas to the Bangladesh delta transport arsenic. Many wells in Bangladesh have arsenic levels many times WHO's maximum permissible limits and millions of Bangladeshis suffer from arsenic poisoning. According to study by the team of scientists of the Massachusetts Institute of Technology, injecting molasses into the test wells led to initial rise in the arsenic concentration followed by a drop. These chemical changes were consistent with a scenario where the microbial activity liberated the arsenic from the soil sediments. About 40% of the recharge received by the aquifers is in the form of carbon-rich surface waters, which enters in the dry season when groundwater usage is maximum. These waters could be heavily loaded with untreated wastes from the population, leading to increased microbial activity. The effects of irrigation, though are complex.

**Not testing the waters** Victims of the Arsenic poisoning in the Bangladesh have taken the British Geological Survey to court. They contended that BGS did not test for arsenic in the water of wells funded by a project, which had partners such as UNICEF and the WB from 1983 to 1992. Consequently, they unknowingly consumed water-containing arsenic over a long period. A part of the money for digging these wells was given by the UK and the expertise for the project was provided by BGS. According to BGS sources, since the presence of arsenic in the area was not known during the period in question, they cannot be blamed for the poisoning case. But according to the experts from School of Environmental Studies, Jadavpur University, Kolkata, the presence of contaminant in river basins of the region was known even in 1984. (THE HINDU 241102, Down To Earth 301102)

## AROUND THE WORLD

**Silted reservoirs of Japan** A survey conducted in Japan in 2000 covering 782 dams with a capacity of 1 MCM or more showed that 124 had reservoirs where mud accounted for 20 % or more of the volume. Most of the dams were owned by power generation companies. The survey by the Ministry of Land, Infrastructure and Transport covered dams run by central and local govts, electric companies and the Water Resources Development Public Corp. The worst was Chubu Electric Power Co.'s Senzu Dam in Shizuoka Prefecture, which was 97.7 % filled with mud. Of the 124 dams that are filled 20 % or more, 83 are owned by the nation's nine power utilities and the Electric Power Development Co., and 25 are managed by prefectural govts. By region, many are concentrated in central Japan. Thirteen are in the Kiso River and its tributaries, nine each in the Oi River and Tenryu River and seven each in the Tone River and the Sho River. Many of the dams were built either in the 1920s and '30s or the

postwar reconstruction period of the '50s and '60s. After 1957, dam designs were supposed to limit sediment buildup to levels that would not hamper operations during the 100 years of a dam's expected working life. Of the 45 dams designed that way, 18 have already exceeded the maximum level anticipated, with the ministry's Shinaki Dam in Gunma Prefecture the worst at 75.8 %. Dredging can cost central and local govt millions of yen per dam annually, but no clear answers to the muddy problem are in sight. (IHT/Asahi-Japan 191102)

**Committee to review Japan's dams** Experts from Japan and the US launched a committee to examine Japan's love affair with dams, hoping to draw on US experiences in reviewing and decommissioning such projects. The announcement was made during a session of the ongoing World Water Forum. The US-Japan Dam Committee is chaired jointly by Nagano Prefecture Governor Yasuo Tanaka, who purses a no-dam policy, and Daniel Beard, a former head of the US Bureau of Reclamation, who declared in 1994 that the era of big dams is over. Japan has more than 2,700 dams across the country. The committee, which has about 10 members, will evaluate dams and their possible removal from administrative, engineering and scientific viewpoints. "In the US, an organization that includes govt officials is reviewing and removing dams," said Reiko Amano, chief of the committee's secretariat and representative of the NGO Association for Public Works Review, a Gifu-based group of nongovernmental organizations. "We want to learn from US experiences and review existing dams in Japan." **In the US, more than 200 dams have been removed over the past decade mainly because of financial, social and environmental costs.** In Japan the idea has yet to become a trend, but some projects are under review. (Japan Times 220303.)

**92 dam projects scrapped in Japan** Former Nagano Governor Yasuo Tanaka drew considerable attention and a no-confidence vote for his effort to suspend construction of dams. But shelving dam projects is not unique to Nagano Prefecture. According to Asahi Shimbun of Japan, since fiscal 1996, the govt of Japan has scrapped plans for 92 dams, of which at least 70 % were deemed unnecessary because water needs anticipated years ago are unlikely to materialize. The Kiyotsu River dam project in Niigata Prefecture, which was cancelled in 2002, Planning was begun 36 years ago for a dam and reservoir to hold up to 170 MCM of water to supply the Nagaoka area. Of the 92 projects dropped, 19 involved dams with reservoirs containing 10 MCM or more. Construction never started for most of them. 29 of the dams were blessed by the central govt and 61 were prefectural projects, with two others planned by the national Water Resources Development Public Corp. In many of the 68 projects that were dropped because of an abundance of water, the

reduced demand for tap water came about because of recession, water-conservation efforts and flat population growth. Local govts just could not justify the cost of construction. A dam over the Kii-Nyu River in Wakayama Prefecture that would have provided tap water for Osaka Prefecture was dropped in May 2002, after Osaka halved its projected intake. In Kyoto, Kochi and Kagoshima prefectures, irrigation dams were dropped as the farm population dwindled. 20 of the dams were simply not economically viable, and officials had found other ways to divert floodwater and thereby eliminate nine other projects. Nearly 400 other dam projects are still on the drawing board or under construction nationwide, but they may also come under scrutiny. (IHT/Asahi 130802)

### **Upgrading dams could light 30 M US homes**

According to Voith Siemens Hydro Power, campaigning to upgrade generating equipment at the US's HEPs, an additional 30 000 MW could be squeezed from those dams based on data from the US Dept of Energy, enough to run about 30 M homes. The US stopped building big dams decades ago due to a scarcity of suitable sites and growing opposition to damming more rivers. Voith Siemens, world's one of the biggest hydropower turbine maker, is a joint venture between German industrial giants Voith and Siemens AG. While the company is still building massive HEPs in developing nations like China, Brazil and India, it is refurbishing dams in the US and Europe. There are more than 3 500 HEPs scattered across the US, with installed capacity of about 100 000 MW or 13 % of the nation's total. The modernization of the HEPs has largely been ignored. (Reuters 281002)

**Bujagali too expensive: Panel** According to experts, electricity from the proposed \$ 550 M Bujagali dam, which would be east Africa's largest single FDI project, could cost \$ 280 M more than necessary over the 30-year lifetime of the contract because of an unfavourable deal with AES, the US company due to build the dam. Construction of the dam is suspended while the WB and the US Justice Dept investigate allegations of corruption in the project. According to IRN "This project represents a serious burden for a highly indebted poor country like Uganda. This study clearly demonstrates that the WB has misled the public and provided bad advice to the Ugandan govt." IRN had commissioned Prayas Energy Group, a team of independent energy experts in India, to analyze the project contract. The Prayas review concludes that the Bujagali project is excessively expensive. With a cost of \$ 2.9 M per MW, Bujagali is more than twice as expensive as a comparable dam in central India, a project with a similar design and a cost of \$ 1.2 M per MW. On top of the high construction cost, the Bujagali contract contains several unusual requirements that put the Ugandan govt at an undue disadvantage. The PPA for this project was reviewed for 11 months in the Ugandan parliament.

NAPE, IRN and Greenwatch from Uganda have for many years requested the public release of the PPA, which defines Uganda's financial obligations for the project over 30 years. The WB, AES and the Ugandan govt have consistently refused to release it. On Nov 12, 2002, the Uganda High Court in a case by Greenwatch ruled that the PPA must be released to the public, but the govt is thought to be planning an appeal. According to Uganda's National Association of Professional Environmentalists "The Bujagali dam is not in the best interest of the Ugandan people and should be cancelled". Bujagali is a 200 MW HEP on the Victoria Nile in Uganda. It was awarded to the AES Corp, without any competitive bidding. The project's funders include the WB, the African Development Bank, and public financial institutions from Sweden, Switzerland, Norway, Finland, and the Netherlands. An additional guarantee from the WB Group is still pending. In June 2002, the Inspection Panel, the WB's independent investigative unit, found that the Bujagali project violated five operational policies of the Bank. The Panel also noted that the cost of Bujagali was much higher than the average cost of HEPs. Due to serious allegations of corruption, all funding for the dam was suspended in July 2002. (Financial Times-US 211102 & IRN PR 201102)

#### **Michigan Citizens Fight Ice Mountain/Nestle Waters**

Concerned citizens in Michigan are organizing against a water bottling plant recently built by Ice Mountain / Nestle Waters that pumps and bottles groundwater from a tributary of Lake Michigan. The plant's use of water from Lake Michigan opens the door for other multinational water sellers to use international trade agreements such as NAFTA to ship and send Lake Michigan's water all over the world. The Michigan Citizens for Water Conservation is currently fighting Nestle Waters with a lawsuit to try to protect the Great Lakes, and a Michigan Rep. has submitted an amendment to the Water Resources Development Act that would prohibit the diversion of all groundwater that feeds tributaries of the Great Lakes. ([www.waterissweet.org](http://www.waterissweet.org))

#### **Human Rights Crisis at 3-G as Reservoir Starts Filling**

The reservoir of the controversial Three Gorges Dam in China's Yangtze Valley will start filling on April 10, aggravating already serious human rights problems in the affected areas. A new report documents that the resettlement problems of this dam have not been resolved, and that project construction is linked to systematic human rights violations. At the annual session of the UN Commission on Human Rights in Geneva, International Rivers Network and Friends of the Earth International have called on China to suspend submergence until the project's human rights problems have been resolved.

They have also called on Western govts that fund the dam to ensure that the project complies with international norms. So far, 640,000 people have been displaced. An investigative report published by IRN reveals that the record of compensating and rehabilitating the affected people has been abysmal in many areas, and does not meet international standards. "Land and jobs to rehabilitate affected people are no longer available", says Doris Shen, coordinator of IRN's East Asia program. "No independent grievance mechanism exists in which people can claim their right to fair compensation, and the police have used excessive force to quell many protests against the project. Many people have been detained, and in some cases sentenced to long prison terms, for engaging in peaceful protests."

FoE International and IRN are also holding the govts that have provided funding for the Three Gorges Dam accountable for the human rights impacts of the project. Brazil, Canada, France, Germany, Sweden and Switzerland have extended export credits and guarantees to the tune of more than \$1.4 B for the project. In many cases the governments claimed that their involvement would reduce the risk of human rights abuses. On March 31, the environmental groups called on the involved govts to closely monitor the human rights situation in the project area, and to extend no further export credits as long as the problems have not been resolved. In response to the IRN report, the Swiss foreign minister committed to "gathering additional information from a variety of sources" on the problems of the Three Gorges Project. (IRN & FOE PR 030403)

**China starts mega water project** The Chinese govt has started \$ 59 B mega water project that calls for building three massive aqueducts – each as big as medium sized river to transfer water from South to the North. The first two will be up to 1 300 km in length and link Beijing and other northern industrial cities with Yangtze, China's largest river. A third to be finished in 2050 will cut through the high mountains near Tibet to link the Yangtze to the headwaters of the Yellow River, which chronically dries up from overuse. According to experts, the diversion will disrupt entire ecosystem, and the same amount of water could be saved through conservation. (THE HINDU 281202)

**Vuotos Dam rejected in Finland** The Finnish Supreme Administrative Court rejected the Water Act licence for the Vuotos Dam Scheme. Vuotos is an important nature reserve in Eastern Lapland. The power company Kemijoki Ltd has been planning a reservoir and a HEP on it since the 1960s. The decision of the Court is final. There are no possibilities for further complaints. According to Finnish Association for Nature Conservation, this is one of the biggest victories in the history after a 10 yearlong struggle. (IRN PR 181202)

### Thailand Senate panel wants Burma dam scrapped

The Senate foreign affairs panel in Thailand has called on the Electricity Generation Authority of Thailand and MDX Plc, a construction group, to scrap project to build dam on the Salween river in Burma, citing concerns for national security and image. According to the panel, the project would lead to more human rights violations in Burma, forcing more oppressed Burmese people to seek refuge in Thailand. Thailand already had to deal with more than 4 M Burmese immigrants. MDX was set to sign a MoU in Rangoon on the construction of a 3 600 MW dam, called Ta Sang, on the Salween river in Burma's Shan state. Meanwhile, Egat is pushing the govt to give the green light to two other dams to be built downstream, opposite the Thai district of Mae Sariang in Mae Hong Son. The Salween project was discussed at a recent Asean summit in Cambodia, where energy ministers agreed the project would go ahead. The Thai Action Committee for Democracy in Burma has said the dams would destroy one of Southeast Asia's richest river ecosystems. The Salween was the lifeline of more than 10 M people in 13 ethnic groups. Thailand had no real need for the HEP at the moment because the country already had a huge oversupply of electricity.

➤ **Thai PM backs the dam** Thailand's PM gave the first public indication of govt support for dams on the Salween river during a visit to the EGAT. He said they were an essential part of the plan by eight Asean members to develop the Asian power grid. The project will see the development of two 5000 MW dams on the Salween river along the Thai-Burmese border. (Bangkok Post 191202, International Water Power and Dam Construction 180303)

## IRRIGATION OPTONS

**A man who changes the fate of a village** A man with indigenous mind changed the 60 Ha of barren land into lush paddy fields in Durg district of Chhattisgarh. 60 year old Brij Lal Sahu, started his work 40 years ago when he backed two uncles, took up the task the diverting water from the semi-perennial Godarra river into his fields in Kudari-Dalli, a village 112 km from Durg and accessible only through a near earthen roads. The investment paid off as, for more than two decades, the river provided assured irrigation to 3.5 Ha of the Sahu family land. Following the innovative irrigator's advice, the villagers got together for shramdan and built a new water channel close to Sahu's fields. "Had the drought not happened this year, the water scheme could have covered 140 Ha of land — that's almost 92 % of the total agricultural land in Kudari- Dalli, " says Sahu. Without using any blasting material or mechanised tools he cut down giant boulders and granite rocky surface. Irrigation dept officials have visited the villages frequently to study the possibility of expanding it by spending Rs 6.2 M, though this has not enthused most of the villagers. (THE INDIAN EXPRESS 031102)

**Watershed fund created in NABARD** The Union Agricultural Minister has disclosed that Rs 2 B

watershed development fund has been created in NABARD. The fund would be utilised to create necessary framework condition to replicate and consolidate the isolated successful initiatives under different programmes in the govt, semi-govt and NGO sectors. A number of extremely aided projects funded by the WB and through bilateral assistance were also operational. About 9.60 M Ha area in the country has been treated through Watershed Development Programme of the Ministry during 8<sup>th</sup> and 9<sup>th</sup> Five Year Plans involving an expenditure of about Rs. 29.90 B. The watershed programmes have now been subsumed under Macro-Management Mode, under which the States have the freedom to develop and pursue activities on the basis of their regional priorities. (PIB PR 041202, THE FINANCIAL EXPRESS 051202)

**Centre approves Zerenga Watershed project** The Union govt has sanctioned Zerenga Watershed Project for Sivsagar district in Assam involving expenditure of Rs 36 M. This project will be completed in five years, will render 6 000 Ha of water logged land of the district suitable for various purpose. (SENTINEL 291202)

**Watershed Grants siphoned off** Watershed programmes undertaken by different organisations in Maharashtra villages are steeped in corruption, in the absence of physical audits. According to the study report of the govt-run Tribal Research and Training Institute, Grants meant for the works have been siphoned off. The report *stealing from the poor* said, "It is easier to steal from poor precisely because they are poor. They neither see nor understand programme guidelines, false measurement books of work done, and false receipts of payment made". As for example, in four Nashik villages, the report said, "The expenditure under the scheme was Rs 2.4 M of which Rs 1.5 M is the estimated misappropriation". (THE HINDU 241102)

## IRRIGATION

**Scam in Punjab** The Punjab govt has suspended some officials right upto Chief Engineer level in connection with a multi-million scandal pertaining to Upper Bari Doab Canal remodelling project. The state CM has set up a special inquiry committee. The suspension has been ordered on the basis of the preliminary report submitted to the govt by the committee. The remodelling project was taken by the Irrigation Dept a few years ago. It was worth Rs 1.80 B and out of it Rs 1 B has been already released. While 75 % of the funds were provided by the Union govt, the remaining by the state govt. The inquiry committee had found several faults in the execution of the work. The lining work on the canal collapsed at several places following the release the water. Rules and procedures under design guidelines were violated with impunity. The preliminary inquiry has concluded that the entire expenditure of Rs 1.12 B on the remodelling project has gone down the

drain. Sources say that the family members of some of the senior politicians were project contractors. Some officials seem to have started the cover up efforts as soon enquiry was announced by the Punjab govt.

➤ **Canal breach drowns 240 Ha** Following a 70 ft wide breach in the Kasoor Branch Lower canal passing through Alladinpur village near Tarn Taran in Punjab, even as the canal was carrying water at just about 80% of its capacity. 240 Ha of cultivated land was submerged in 3-5 ft deep water and over 30 tubewells have become non functional. Kasoor canal is part of the Upper Bari Doab Canal network and starts from Sathiali. The breach has affected thousands of people in five villages and the loss is reported to be in millions. The Irrigation Dept, Majitha division said that in April, the dept had widened the canal from 60 to 72 ft during remodelling of the canal. Hundreds of bags containing foodgrains stored at an FCI godown were also damaged. (THE TRIBUNE 011202 & 041202, INDIAN EXPRESS 141202, 151202)

**MKVDC Scams** A black marble plaque at a shed on the bank of the Krishna River in Sangli district in Maharashtra announces that the Mhaisal lift irrigation project was commissioned on May 16, 1999. The Maharashtra Krishna Valley Development Corp, who owns the project, claims inability to foot the bills for the power used to test the system. Ever since, the 64 pump sets each with 1250 HP capacity and costing over Rs 4.2 M have been left to the mercy of rust. The Rs 765.1 M property is lying unused. Mhaisal project sums up the MKVDC (formed in 1996) saga. Similar conditions prevail at MKVDC projects in eight western Maharashtra districts. The Corp targeted completing 495 minor and major irrigation projects within 48 months to harness 475 tmc ft of water. The Corp has so far spent Rs 75 B. Each project has now been transformed into a battleground for contractors demanding their dues, employees demanding payments, and peasants demanding a fair deal. The budget that was Rs 71 B in 1996 rising to Rs 83.17 B in 1999 and now to Rs 150 B. MKVDC was asked to raise money from public besides the Rs 35 B promised by the state govt. The Corp floated bonds to raise Rs 9.75 B in 1996-7, Rs 9.6 B in 1998-9. Three subsequent issues raised Rs 132.23 B, Rs 6.36 B and Rs 7.93 B. It now wants to raise Rs 5.04 B and Rs 2.81 B soon. Having guaranteed the bonds, the cash strapped state govt today spends a major chunk of its irrigation budget as interest to bond holders. And the worst part of the mess is that there are almost no worthwhile benefits. (INDIAN EXPRESS 031103)

**Scam in Haryana** The Haryana Vigilance Bureau has claimed to have unearthed a scam in Irrigation Dept, resulting in loss of over Rs 38.8 M to the public exchequer. According to a report from revenue wing of Irrigation Dept, five fisheries ponds had been filled with water illegally since the Rabi crop of 1996-7 in the area

falling under the jurisdiction of subdivision in contravention of Section 24 and 25 of the Canal Drainage Act. The Bureau had recommended departmental action under rule 7 of the punishment and Appeals Rules, 1987 against some officials. (THE TRIBUNE 201202)

**Irrigation Funds diverted** According to CAG of India, 13 states have diverted funds allotted by the Union govt for irrigation. The funds allotted under the Command Area Development Program for better utilisation of irrigation potential have been utilised by the 9 states (AP, Assam, Bihar, Goa, HP, J&K, Karnataka, Kerala and Maharashtra) in other programmes. While the four states, UP, Rajasthan, West Bengal and Orissa have not used the allotted amount. The CAG has recommended for recovery of the entire amount of Rs 950 M. (RASHTRIYA SAHARA 091102)

**Polavaram performance not optimum** The Polavaram project, aimed at utilising another 400 tmc of the Godavari waters, remained a non-starter despite agitation by the people demanding proper utilisation of Godavari waters. The state has been availing only 500 tmc out of total 1495 tmc of its share from Godavari. It was proposed to divert 80 tmc water of Krishna to bring 0.5 M Ha of land under irrigation. As per the proposed plan, water would be allowed to enter the river between Prakasam barrage and Pulichintala project. The proposals were not materialised owing to several reasons. It was proposed to extend the right canal up to 174 km as part of the Polavaram project. The canal was intended to pump 80 tmc of water in to the Krishna. (NEWSTIME 041102)

**Poor Performance of Major Irrigation in Bihar** The Centre has taken strong exception to the poor state of four Command Area Development Programmes in Bihar and set 2007 as the deadline for optimal utilisation of the created irrigation potential, ruling out any further extension. It was decided to continue the four CADAs as the last chance to set things right. The four agencies are Gandak CADA (Muzaffarpur), Kosi CADA (Saharsa), Sone CADA (Patna) Kiul and Chandan Badua CADA (Bhagalpur). In the Gandak CADA, against the created irrigation potential of 0.96 M Ha, only 0.35 M Ha have been used, while in the case of Kosi CADA it is 0.23 M Ha and 0.179 M Ha. Sone CADA, it is claimed, has been able to utilise 90 % of the created potential of 0.7 M Ha. Set up in 1974-75, the much-hyped CADAs have so far failed to deliver. (THE HINDUSTAN TIMES 131102)

**Gandak project in ruins** The Gandak project, one of the largest irrigation projects of the country, has been reduced to a white elephant. It was designed to ultimately irrigate 1.48 M Ha of land in India and Nepal. Due to lack of maintenance most of the smaller canals are defunct. While the project was designed to improve

the lot of the farmers of Champaran, Saran and Muzaffarpur, the reality is that administrative mismanagement has turned the gigantic project into shambles. Hardly 10% of the required maintenance budget is actually available. Many of the contractors are history-sheeters. They prevail upon the officials to accept their tenders and pass their bills, in many cases without doing any work. (THE HINDUSTAN TIMES 131102)

**Water User Cooperatives Fail: Privatisation on Cards in Maharashtra?** Frustrated over the "failures" of the water user cooperatives in managing canals and ensuring equity in water irrigation water distribution and payments of water rates, the govt is edging towards a decision that such rights should be auctioned to any entity. A recommendation by a 3-member Cabinet sub-committee to this effect had been made, as a nearly two-year-old decision to transfer such tasks to cooperatives had not met with much success. None of the N Maharashtra districts have any except Nasik district, it is claimed. Recently, the sources argued, a survey and satellite monitoring showed that sugarcane was under reported by some 60%. (THE HINDU 191202)

**Karnataka hikes irrigation tariff** Karnataka has revised the irrigation tariff for all the command areas under the major and medium projects with retrospective effect from July 2000. The revision is the first in 37 years. The revised rates will be applicable to over 1.9 M Ha of land. Under the revised rates, the farmers have been divided into two categories – those coming under the jurisdiction of water users societies and those who do not. While a fixed seasonal flat rate would be charged based on the type of crop being grown for farmers not under the water users co-operatives, a tariff based on the volume of water consumed at the rate of Rs 12 per 1000 cubic meter would be charged for areas having such co-operatives irrespective of the crop grown. The societies are to retain 50% of the revenue for canal maintenance. (DECCAN HERALD 211102)

**RIDF is a flop, despite claims** Even though NABARD officials make grand claims, the Rural Infrastructure Development Fund is a flop, confirming the findings of the independent research paper. The total corpus of RIDF (I to VIII) as of 231202 is put at Rs 285 B, sanctions at Rs 259.9 B and disbursements at Rs 150 B. Under RIDF VII sanctions were Rs 49.89 B, disbursements Rs 16.25 B and under RIDF VIII sanctions were Rs 25.81 B and disbursements at Rs 3.71 B. While NABARD claims about completion of many projects, there is no mention of quality. The Benefits are far below anticipated benefits. The anticipated irrigation potential was placed at 6.84 M Ha, while benefits achieved have been 4.62 M Ha. Some 321-power projects (system improvement and mini hydro) were taken up with a sanctioned amount of Rs

7.84 B and disbursements have been Rs 1.8 B. (BUSINESS LINE 251202)

**NABARD guidelines finalised** The NABARD along with the govt of India, has finalised operational guidelines for the implementation of the centrally sponsored scheme for 'On Farm Water Management' in eastern India, including Assam. The scheme is aimed at developing irrigation facilities by tapping the ground water resources in a planned manner. The Centre has agreed to provide back ended subsidy at 30 % of the investment cost under the scheme through NABARD and margin money of 20 % and bank credit up to 50 % were prescribed. For Assam, the Centre has allocated an amount of Rs 86.4 M as subsidy for the year 2002-3. Nabard has since prepared district and block wise banking plan for Assam in consultation with the banks and the state govts. For the current year, the plan has proposed to finance 3160 shallow tubewells with pumpsets, 7406 low lift points and 8038 pump sets, a total financial outlay of Rs 290 M. (ASSAM TRIBUNE 181102)

**Situation in Upper Ganga Canal grim** The Upper Ganga Canal originates from Ganga at Haridwar in Uttaranchal and irrigates over 0.904 M Ha. Of this 18000 Ha are in Uttaranchal and rest in UP. In Nov 1998 the canal flow was 22 300 cusecs of water and now it has been reduced to one third. According to an executive Engineer of UP irrigation Dept, the Uttaranchal has developed 1800 small canals. Over 2 000 cusecs of water is consumed by these canals. UP fears that after commissioning of Tehri HEP the situation would be very grim. (AMAR UJALA 261102)

**Japan to fund 10 irrigation projects in AP** The govt of Japan has agreed in principal to extend financial assistance to 10 medium irrigation projects in AP at an estimated cost of Rs 20 B. Veligallu project in Cuddapah district, Bhoopatipalem project in W Godavari district, Palemwagu project in Khammam district, Komaram Bheem project in Adilabad district are in the first phase. Six other projects would be taken up in the 2<sup>nd</sup> phase. (NEWSTIME 091202)

**Mitigating Drought** The Centre had sanctioned no new irrigation projects sanctioned since 1990, according to a member of Planning Commission. The Plan outlay of Rs 13 B for irrigation is spent on paying the wages of the department's 7 000 engineers. But Rs 600 B was invested in communication, the money for which should have come from the private sector, he rightly said. He went on to say that water problems of 83% of drought prone areas can be solved by community actions and this should be the focus of the 10<sup>th</sup> plan. (THE TRIBUNE 041202)

COMMENT: The contention that no irrigation projects have been started since 1990 is obviously wrong. According to 10<sup>th</sup> Five Year Plan, 13 major, 37 medium and 36 ERM projects were undertaken during 9<sup>th</sup> Plan (1997-2002) alone.

**Farmers protest for water** Farmers in the Visakhapatnam district of AP have demonstrated for release of more water for irrigation from Raiwada project. The farmers were protesting against reduction of water supply to agriculture from the project and diverting their due share of water to the steel city. The police lobbed teargas shells and fired 25 rounds to prevent the farmers from forcibly releasing water from the project. Several people were injured and arrested. (NEWSTIME 031202)

**Madduvalasa inaugurated** The Madduvalasa irrigation project has started providing irrigation benefits in Vangara mandal in AP. The CM said that the project would provide irrigation to 7 000 Ha and this would go up to 9 900 Ha on completion. At present the water holding capacity of the project is 3 tmc and after completion it would be 4 tmc. (NEWSTIME 011202)

**Two dead in clash over water** Two persons have died and several injured in a dispute over canal water in Barah and Harpura villages under Aswar police station near Bhopal in MP. The canal was without water for many days. When the water was released, the people of Barah village stopped it. The villagers of Harpura asked the Barah villagers to remove the obstruction. This started the dispute, leading to ugly fight. (CENTRAL CHRONICAL 261102)

**HP plan** The HP govt has is to start an ambitious plan to provide irrigation to 0.35 M Ha of land. The total cultivable area in the state is 0.58 M Ha. The state CM claimed that 5 years ago only about 50 000 Ha was under irrigation. During past four years the govt has launched three major schemes, which when completed would irrigate 20 787 Ha. These include the Rs 1.43 B Shah Nehar irrigation scheme from the left bank of the existing Mukerian hydel channel, Rs 336.2 Sidhata medium irrigation project in Kangra district and Rs 283.7 M Anandpur hydel channel scheme. In addition, four medium irrigation projects including the Bhabour Saheb Project II (Rs 114.5 M, 2640 Ha) and Giri Irrigation Project (Rs 82.7 M, 5623 Ha) and 200 minor irrigation projects were completed, he claimed. (THE TRIBUNE 221102)

## WATER SECTOR

**Water for Health Declared a Human Right** A UN committee has declared formally for the first time. "Water should be treated as a social and cultural good, and not primarily as an economic commodity," the committee said, siding with those who object to the privatisation of water supplies. The United Nations Committee on Economic, Cultural and Social Rights took the unprecedented step of agreeing on a General Comment on water as a human right, saying, "Water is fundamental for life and health. The human right to water is indispensable for leading a healthy life in

human dignity. It is a pre-requisite to the realisation of all other human rights." A General Comment is an interpretation of the provisions of the International Covenant on Economic, Social and Cultural Rights. Although the Covenant does not expressly refer to the word "water," the committee determined that the right to water is "clearly implicit" in the rights contained in two sections of the Covenant. The General Comment means that the 145 countries which have ratified the Covenant "have a constant and continuing duty" to progressively ensure that everyone has access to safe and secure drinking water and sanitation facilities – equitably and without discrimination. "Countries will be required to 'respect, protect and fulfil' individuals' rights to safe drinking water and sanitation," said World Health Organisation Director-General Dr. Gro Harlem Brundtland, quoting from the General Comment. (ENS 041202)

**Water rights and Indian Laws** Water rights are fundamental to resolution of conflicts, whether it is between farmers in an irrigation system (as in head and tail reaches) or between irrigation systems (same basin in different states) or between irrigation and other sectors (e.g. industries and municipal requirements). The central conflict over water resources revolves around the question of the ownership, access and control over water. Surface water in India belongs to the state and this is direct consequence of usurpation of traditional and customary rights by the state. One of the early legislation in the area of water resource management was the North India Canal and Drainage Act 1873. The preamble to the Act says, "the provincial govt is entitled to use and control for public purpose the water of all rivers and stream flowing in natural channels, and of all lakes and other natural collection of still water." Without talking about ownership the Act asserts the right of state to use and control water. The India Easements Act 1882 also legitimised customary right of the people and provided rule for their recognition. But again under the 1882 Act all these rights are subject to overriding provision of "any right of the govt to regulate the collection, retention and distribution of water of rivers and streams flowing in natural channels, and natural lakes and ponds, or of the water flowing, collected, retained or distributed in or by any channel." In an important case the court ruled the power of govt for water management was conditional upon the fact that the traditional supplies of water should not be diminished. The govt had the power to regulate in the public interest, the collection, retention and distribution of water of rivers and streams flowing in natural channels or in manually constructed works, provided that they do not thereby inflict injury or any other riparian owners and diminish the supply that they have traditionally utilised. The right of enjoyment of pollution free water is now a fundamental right under Article 32 of Indian Constitution. (EPW 071202)

**World water crisis** According to report by the International Food Policy Research Institute and the International Water Management Institute, worldwide if current trends in water policy and investment hold or worsen, the world will face threats to the global food supply, further environmental damage, and ongoing health risks for the hundreds of millions of people lacking access to clean water.

- By 2025, water scarcity will cause annual global losses of 350 MT of food production – slightly more than the current US grain crop.
- Consumption of water for all non-irrigation uses will rise by 62 %.
- Industrial water demand will increase significantly in developing countries and, by 2025, a major shift will occur. Industrial water demand in the developing world will exceed the demand in developing countries.
- Water scarcity will cause substantial shifts in places where the world's is food grown. Developing countries will dramatically increase their reliance on food imports. In the sub Saharan Africa, grain imports will more than triple. Poor countries, unable to finance imports, will experience increased hunger and malnutrition.
- In 1995, 11% of India's rural households had accessed to pipe water. Under the business as usual scenario (BYS), this number will go up to 47% by 2025; under the water crisis scenario, it would go up to 13%.
- In 1995, India harvested an estimated 37.8 M Ha of grains under irrigation. Irrigated land will reach 47.1 M Ha by 2025 under BYS. In 2025, India will consume 396 km<sup>3</sup> of water under BYS. This is more than double that of projection for the US (191 km<sup>3</sup>) and nearly one fifth of the total global water consumption that year.
- Domestic water use in India is projected to nearly double between 1995 and 2025, from 21 to 41 km<sup>3</sup>.
- A quarter of the world's population will suffer severe water scarcity within the next 25 years, even during years of average rainfall. This poses the single greatest threat to food security, human health and natural ecosystems. (THE PIONEER 141102)

## GROUND WATER

**Grim situation in AP** A study by the AP Pollution Control Board stated that water that was recharging the groundwater contained high levels of mercury and other pollutants. This was leading to economic loss for cattle breeders and farmers. Around 21 000 habitations were facing problems due to depletion of groundwater. According to AP groundwater Dept, at present about 80 % of rural water supply and 42 % of irrigated agriculture requirements were being met by ground water. According to Water Conservation mission sources, drinking water to be supplied from the Krishna water project would cost people of the Hyderabad city four times more than the present rate.

- **Low Recharge, High Runoff** According to experts from the Hyderabad Water Conservation Mission, the groundwater recharge is only 9 % while the water run-

off is as high as 40 %. "If this high run-off can be arrested and used to recharge groundwater table, then most of water problems will be solved," Mission sources said. The nitrate level in groundwater at Vijayawada rose from 1.8 mg/l in 1982 to 22.3 mg/l in 1991 while the safe limit is 10 mg/l. "The groundwater in and around Hyderabad shows very high levels of mercury, arsenic, manganese, nickel, strontium, fluoride and other harmful chemicals". (NEWSTIME 301102, THE TIMES OF INDIA 011202, DRP 1202 p. 27)

**WB for stiff Power tariff in AP** The WB has recommended to the state govt to increase agriculture power tariff as a disincentive for high consumption and to prevent excessive exploitation of groundwater. In a case study conducted on power supply to agriculture sector in AP, the WB suggested further advancement of graduated tariff rates (higher per unit rates at higher consumption levels) that, it said, would help in dealing with groundwater degradation. The Bank also suggested metering of agriculture pumpsets that would help improve pricing of water to better reflect its scarcity value. Regulating access to water through registration of wells and regulation of well depth, spacing and pump capacity could also help limit overuse of water. (Deccan Chronicle 101202)

**Delhi** The Post Monsoon readings of the groundwater in Delhi have been taken and the results are very alarming. On average levels have fallen by 2.5 m in just a year. In the "safer areas" the fall has been between 0.5-1.5 m. According to the CGWA sources, "the discharge or the pumping out of water is four times the volume of recharge and the quantum of recharge through artificial rainwater harvesting is negligible." In a paper presented by the CGWA experts, the total roof top area, available for water harvesting in Delhi had been calculated as 140 sq km. Experts say that even if rain over 10 % of this area was harvested, 1 320 M gallons water would be available annually. Delhi's requirement is 800-880 MGD. The total rooftop area constructed for water harvesting in Delhi in the past three years does not exceed 10 sq km. (THE INDIAN EXPRESS 101202)

**Fluoride contamination** The groundwater in Chopan block of Sonbhadra district in UP is highly contaminated with fluoride. The people of 15 villages of Chopan block are affected from different disease due to fluorosis and close to 10 000 people have various kinds of deformities. According to an official examination of water in the district, the fluoride level in the water samples was found to be as high as 6 ppm, whereas the permissible limit is merely 0.5-1 ppm. The Allahabad High Court ordered the UP govt to file an affidavit indicating steps taken to prevent, treat and control fluorosis in the Chopan block of Sonbhadra district. It also demanded details of the measures taken to rehabilitate the affected villagers. The HC acted on a

PIL filed by Allahabad based Diocesan Development and Welfare Society on behalf of 18 villages. (DOWN TO EARTH 311202)

### WATER SUPPLY OPTIONS

**Rainwater harvesting in Mumbai** The Municipal Corp of Greater Mumbai has made rainwater harvesting mandatory for residential as well as commercial areas in entire Municipal area. According to the policy, any new building coming up on a plot of more than 1000 sq m should have a rainwater harvesting facility. According to the Commissioner of the Corp, the emphasis of the Municipal Corp was more on collection and storage of rainwater rather than on percolation. He said, the total quantum of water supply to Mumbai was 3000 MLD, which worked out to 200 litres per capita a day for a population of 15 M. Installation of wastewater treatment plants had been made mandatory for new buildings having a plot area more than 2000 sq m. The govt of Maharashtra is also in the process of making suitable amendments in the development control rules to provide for rainwater harvesting for buildings located in the urban area. The per capita consumption of 32 litres could easily be serviced through rainwater harvesting. State govt official said that a conservation of 0.2 % of the total rainfall of 164 BCM per annum would suffice for cooking and drinking requirements in the entire state. Another 1.78 % of conservation would meet the total water requirement on all accounts. (THE HINDU 081102 & FINANCIAL EXPRESS 091102)

**Subsidy and Finance for water harvesting** The DJB has announced finance facility up to Rs 50 000 for setting up water harvesting structures in the city. Up to 50 % of the project cost or Rs 50 000 (the upper limit) will be given as grant. (THE TIMES OF INDIA 181202)

**TN: Rainwater harvesting** The Tamil Nadu govt has fixed a deadline for creating Rain Water Harvest structures in all the houses within one year. For the construction of new buildings, plan approval would not be granted without the provision of facility for rainwater harvesting. This decision comes in the recent Collector's Conference held at Chennai. (THE TIMES OF INDIA 171202)

**Alternative for Hyderabad?** The Chairman of the technical committee (Water conservation mission) has came up with a proposal of exploiting the Kagna river, a tributary of Bhima river, flowing about 65 km west of the Hyderabad city, to meet the demand for water. The main advantage of Kagna is that the cost of pumping water to city as well as the length of pipeline will be about one-fifth of the Krishna water scheme. But as per the Krishna water dispute tribunal award (1976), the state could only utilise 6 tmc water from Kagna river, which was utilised for minor irrigation (4 tmc) and Kotipallivagu project (2 tmc). (NEWSTIME 301202)

### LAKES, TANKS, WETLANDS, GLACIERS....

**Tsho Rolpa Glacial Lake Needs Attention** Experts at the Dept of Hydrology and Meteorology have recommended continuation of maintenance work at Tsho Rolpa, a potentially dangerous glacial lake that has received international attention. A project evaluation team has also recommended maintaining automatic weather station and installation of a glacier lakes outburst flood research documentation and training centre using existing infrastructure. The project was last evaluated in May 2002. The GLOF risk was high due to rapid increase in the lake area, degradation of the moraine dam from Oct 1996 to Sept 1997, great hydrostatic pressure. Tsho Rolpa, formed within the last half century, is considered more dangerous among others. The evaluation team admits that although the risk is lowered, a GLOF in future cannot be ruled out. Experts said that around 17 m of water-level should be lowered in order to mitigate the disaster. Studies carried out till 1995 recommended lowering the lake water-level. The level lowering was accomplished on June 24, 2000. (The Himalayan Times 291102)

**Havoc in Aravali hills** Delhi's only hope against turning into desert is endangered. At several places at Tughlaqabad to Gurgaon road, the miners have gone so deep that the water table has been exposed, forming lakes amidst the blasted ranges. The mining is affecting the entire Aravali range in Gurgaon and Faridabad where hundreds of acres were being subjected to illegal mining. According to CGWB scientist, "Not only have the hills been damaged beyond repair, mining has threatened groundwater reserves as well. Once exposed, groundwater is prone to evaporation and contamination." Once they hit the water table, the miners pump the water out to dig deeper. As a result, the water level in the nearby Asola forest and wildlife sanctuary has started falling at an alarming rate. This has also affected groundwater levels in Faridabad, Gurgaon, south and southwest Delhi.

➤ **SC bans mining in entire Aravali Hills** The SC has banned all mining activities in the entire Aravali Hills from Haryana to Rajasthan. The Chief Secretaries of Haryana and Rajasthan have been directed to ensure that no mining activity in the Aravali Hills is carried out, especially in the parts which have been regarded as forest area or protected under the Environment Protection Act.

➤ The Haryana govt filed an affidavit claiming that mining was good for the water table! But after filing this affidavit the state govt banned all mining activities in the Aravalis. The first order came from the SC to close mines in the 5 km Delhi-Haryana boundary. A subsequent order of Oct 30 '02 said that mining be stopped in the entire Aravalis. (THE TIMES OF INDIA 011102, THE INDIAN EXPRESS 011202, 211102)

**High metal content in Orissa's mangroves** According to a study conducted by researchers from Tamil Nadu based Annamalai University, traces of heavy metal have been found in the samples of five mangrove species in the Bhitarkanika mangrove region of Orissa state, off the east coast of India in the deltaic region Brahmani and Baitarani Rivers. The concentration and accumulation of heavy metals in sediments is closely related to the frequency and duration of the tidal flood. River pollution is another important cause of it. (Down To Earth 151102)

**Bio-monitoring plan for Himalayan rivers** The HP state Environment Pollution Control Board is developing a bio-monitoring protocol of major Himalayan Rivers under the guidance of Vituki, a Hungary-based organisation. The board from over 90 monitoring points on major rivers was undertaking regular surveillance of the quality of water. (THE TRIBUNE 161202)

**Cleaning Golden Temple sarovar** The Golden Temple authorities in Amritsar and an US architectural company have drawn up plans to clean the sarovar around Sikhism's holiest shrine. The 31 M gallons of water in the 508 ft long, 506 ft wide and 18 ft deep sarovar will be cleaned without any changes to its mud floor. (THE TRIBUNE 131202, 191202)

**Wetlands in conservation list** The wildlife and bird sanctuary at Point Calimere in Tamil Nadu and 10 other wetlands have been recently included in the international Ramsar list of wetlands, which makes them eligible for a global package for conservation. The other wetlands that have been included are the Ashtamudi, Sasthamkotta lake and Vembanad wetlands in Kerala, Kolleru lake in AP, Bhitarkanika mangroves in Orissa, Pong Dam lake in HP, East Calcutta wetlands in W Bengal, Bhoj wetlands in MP, Tso Moriri in J&K and Deepor Beel lake in Assam. (THE HINDU 251202)

**Sinking fortune of Dal Lake** The Rs 5 B "Save Dal Project" launched in 1997 has failed and there is no improvement in the situation of Dal lake. The area of the lake reduced from 75 sq km in 1200 AD to 10.56 sq km in 1983. According to Lakes and Water Development Authority, "It would probably measure only about 9.5 sq km." Save Dal Project was launched by the Centre and the state govt. The Centre agreed in principle to provide Rs 2.98 B over a five-year period from 1997-8. The state govt was supposed to bear to Rs 1.94 B. But the centre released only Rs 500 M and state govt spent only about Rs 245 M. According to experts, the lake faces multiple problems. There are about 58 hamlets, with 30 000 people living along the lake. All have rights over 6 000 kanals of agricultural land and 13 400 kanals of water area. The authorities' generous policy of granting no objection certificates – by illegal methods – to those settlers made the lake favoured area. The unabated reclamation of the lake

area by conversion into solid farming land is also to be blamed. The 1997-8 annual technical report released by the Ecological Monitoring Laboratory of LAWDA reveals significant increase in water temperature, specific conductivity, sodium chloride, phosphorus and iron. According to LAWDA officials, in the absence of proper Sewerage Treatment Plants, the untreated sewerage from most of the city finds its way into the lake. Although it is mandatory for the hotels along the lake to install STPs, not a single one has abided by the directive. The lake received 80 000 T of silt annually. The writing is clearly on the wall. (THE INDIAN EXPRESS 081202)

**Keoladev park water crisis** The wetland in Keoladev National Park in Bharatpur is facing water crisis, threatening over 350 species of birds, including the rare Siberian crane. Experts suggested that water should be brought from Yamuna canal or Chambal River. Spread in 29 sq km area including a wetland covering 11 sq km, the park is considered one of the best bird sanctuaries in the world. The annual demand of the park is 540 Mcft water for which the only traditional source is the Ajan Bund located outside the park. The rivers – Banganga and Gambhir supply water to the Ajan Bund. However, due to lack of adequate rainfall over the past three years and blocking the traditional channels, water from the Banganga has not been reaching the bund. In the past two years only 142 mcft and 183 mcft water had been available. The wetland area has sunk from 11 to 9 sq km. (NATIONAL HEROLD 301102)

**Plan to save Nagpur water bodies** The Ecocity Foundation, a branch of the Virbhadrha Natural History Society, has prepared a draft report for the Nagpur region as part of the National Biodiversity Strategic Action Plan commissioned by the Ministry of Environment and Forest. An effort to save city's age-old water bodies is one of the key initiatives. The lakes lie on the western fringes of the city, at the very edge of the Mahendargarh Hills. Due to the favourable lay of land, the lakes were used for supplying water to the city. The Ambazari lake, Telangkhedi Tank and Pandharabodi were strategically located at the very edge of the hills from where different streams of the Nag river originated. Creation of these reservoirs meant that the Nag River flowed throughout the year, ensuring plentiful groundwater throughout the narrow but fertile Nag river basin. The Nag River now is an open sewer with drains releasing untreated water directly into the river. The CGWB survey in Nagpur found that the nitrate levels in the wells near the Nag River are way above permissible levels. (EPW 141202)

## RURAL WATER SUPPLY

**DRDA funds unaccounted for** Over Rs 100 B funds to DRDA is unaccounted for up to March 2002. Most of these funds for rural development projects are blocked

at the block level, sources said. Recently, the Finance Ministry tightened guidelines for the rural drinking water supply programme – where funds to the tune of 35 % of the total meant for awareness education were found to be misused – and restructured the funding pattern from 50:50 (Centre: State) to 90:10 (Centre: Local Panchayat). The possible extent of misuse of funds in individual programmes may be gauged from the fact that despite over Rs 340 B sunk in to drinking water programmes, over 0.2 M habitations still have no water. Another 0.2 M habitations have been supplied unsafe water. (THE ECONOMIC TIMES 041202)

**Rajasthan** The state govt has sanctioned Rs 50 M for 4 drinking water schemes for tribal areas of Baran district where some “starvation deaths” have taken place.

➤ **Rs 5.18 B Emergency water supply scheme** The govt has planned a Rs 5.18 B emergency scheme for supply of water in 22 430 habitations for the coming summer. Of this Rs 3.56 B would be spent in rural area and Rs 1.62 B in urban area. (BUSINESS STANDARD 131102, THE HINDU 201102, DAINIK BHASKAR 051202)

**Haryana** NABARD has earmarked Rs 111 M for launching 13 schemes to supply water in 33 villages during this fiscal. (THE TIMES OF INDIA 081102)

**Vidarbha** According to the 6<sup>th</sup> plan, about 17 112 habitats out of 84 000 were scarcity-hit; Rs 3.73 B were spent and problems were reported to be ‘solved’ in 15 883 of these problem habitats. During the 7<sup>th</sup> Plan, problem habitats grew to 23 306 and Rs 9.8 B was spent. During the 8<sup>th</sup> plan, 16 790 places got attention and Rs 4.96 B was spent. A survey done in 1996, revealed 53 462 problem spots. 87 of the 303 taluks in the state are considered areas of recurrent or perpetual water scarcity. The state has just 15 % of irrigated land against the national average of 30 %. In 1994 the state govt created the separate dept called Maharashtra Jeevan Pradhikaran to implement drinking water schemes under the ARWSP throughout the state. According to an audit of MJP for the years 1996-2001, out of the 4 390 schemes sanctioned for execution, only 1 474 schemes were completed, 1 666 were in progress that required another Rs 20.82 B for completion. 1 615 other schemes sanctioned for Rs 43.84 B could not be started due to resource crunch. (EPW 16-221102)

**WB loan for Punjab** The CM said that the WB had sanctioned a loan of Rs 8 B for water sector. (THE TRIBUNE 261202)

**Charges hiked in Punjab** The Cabinet subcommittee of Punjab has approved the revision and utilisation of user charges for repair and maintenance of rural water supply schemes. As per the approved rates, for normal schemes designed at 40-liters/capita/day water supply, the monthly tariff for private connections would be Rs 50 for 2002-3 to Rs 60 for 2006-7. In respect of water

supply under Nabard schemes designed for supply of 70 liters/capita/day, the charges would be Rs 60 per month for 2002-4 to Rs 75 for 2006-7. The monthly tariff for households drawing water from public stand posts will be Rs 10 for 2002-5 to Rs 15 for 2005-7. The Dept of Public Health proposes to reduce the number of public stand posts over a period of five years with private connections to be given priority. Existing rates are Rs 40 /connection and no charge on stand posts.

➤ **Toti Bachao Morcha** Following attempts by the govt to remove the tapes where people could not pay the new user charges, people have launched a Toti Bachao Morcha in villages of Punjab, to save from destruction the water tapes. (THE TRIBUNE 061202, People’s Water Forum in Delhi on 150303)

**Swajaldhra launched** The PM has launched the Swajaldhara programme initially for the 8 states of AP, Orissa, HP, Haryana, Maharashtra, MP, W Bengal and UP. The scheme envisages people’s contribution to the extent of 10 % of the project cost and ownership and maintenance of the project itself. However, Panchayats/villages where SC and ST population is over 50 %, need to share only 5 % of the cost. Under the scheme the Ministry of Rural Development is increasing its share of the funds for financing the water supply schemes to 90 %. 882 projects costing Rs 870 M have been sanctioned covering the eight states. Under the scheme the Gram Panchayats/ villages/ communities can plan, implement, operate, maintain and manage the drinking water scheme. The project proposals involve mini pipe water supply, bore well, water harvesting and rejuvenation of water bodies. Ultimately the programme is to be extended to all the districts of the country with an outlay of Rs 20.6 B. Deputy Prime Minister said that if all the hand pumps and piped water supply schemes installed in 1.4 M habitations in the country were to be maintained, the govt would need Rs 50 B. (THE HINDU 061202, PIB 241202, 251202)

**Uttaranchal** Though Uttaranchal is the birthplace of major rivers like Ganga, Yamuna, Kali and Alaknanda, many areas remain thirsty for their basic needs. Of the 31008 habitations, 1450 are facing crisis and 249 have no source. In case of towns, while the need is 210 MLLS, availability is 85 MLD. The traditional water sources are in bad shape due to govt’s neglect. Govt, while taking over the water sources, refused to take care of them. In 1975 Jal Nigam was created with funds from WB. When that failed, in 1995 WB funded Swajal project was started and now there are attempts to implement it across the state, which will bring further disaster for the people. (DAINIK HINDUSTAN 231202)

**JBIC money for Kerala Water** The Japan Bank for International Cooperation is to extend Rs 18 B loan for five districts in Kerala to supply water to benefit nearly 4.5 M people. (BUSINESS STANDARD 171202)

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**URBAN WATER SUPPLY**

**ADB to fund Water Supply from Bisalpur Dam** The govt has also sanctioned Rs 6.9 B for the Jaipur-Bisalpur project that would supply additional water to the state capital. Rs 4.8 B will be provided from the ADB loan, Rs 450 M will be contributed by Public Health Engg Dept, Rs 300 M will be contributed by Jaipur Municipal Corp, Rs 250 M from the accelerated rural water supply scheme and Rs 1.1 B from other sources. Thus, without really taking any responsibility for the social and environmental impacts due to the Bisalpur dam including displacement of thousands of people, ADB has found this escape route of funding water supply project of the dam. (THE HINDU 201102, other sources)

**Water Tariff raised in TN** The state govt has increased water tariff for urban and rural local bodies and industrial units barring those in Chennai. The rate per KL of water has been raised from Rs 3.5 to Rs 4.5 in cities and towns, from Rs 2.25 to Rs 3.00 in villages and from Rs 10.5 to Rs 15 for industry and others. This is following power tariff revision, due to which the cost of water production will go up by Rs 0.79 per KL. The order is applicable to five municipal corporations, 102 municipalities, 611 town panchayats, 12619 village panchayats, which buy bulk water from TN Water Supply Board. (THE HINDU 211102)

**KMC to collect Rs 600 M water tax** After withdrawal of subsidy on water supply in Kolkata, the citizens collectively may have to be pay about Rs 600 M more

annually to the civic authorities. Under directions of the ADB, the Kolkata Municipal Corp is to begin taxing water supply & sewerage and drainage charges to recover costs. Water supply in the city is subsidised under the current system. In 2001-2, Rs 757.1 M was spent in generation and supply of filtered water in the KMC area, while only Rs 183 M was recovered from water charges. The KMC supplies an average of 250 MGD to the city, at a cost of Rs 10 per kl. The supply works out to an average of 45 litres per head per day. Presently, the water charge is based on the size of the ferrule in a house, halfinch ferrules being charged Rs 480 per year (to go up to Rs 600) and one inch ferrule connections at the rate of Rs 790 (to go up to Rs 1000). For bulk users of water, consuming over 100 kl per day, water meters are installed. Metered water supply is to be charged at the rate of Rs 3 per kl for domestic consumers, while industrial and commercial connections are to cost Rs 15 per kl. According to the WB survey, this would generate a surplus of Rs 700-800 M per year. For sewerage and drainage, a 50 % surcharge will be imposed on water tariff for domestic consumers, which will be 80 % for industrial consumers. "In addition, 15 % of the consolidate rate charge will be allocated for supporting water supply, 15 % of sewerage and drainage and 15 % for SWM," the ADB report stated. (THE TIMES OF INDIA 261102)

**SBI caps to get Rs 5.75 B for Hyderabad** The Hyderabad Metropolitan Water Supply & Sewerage Board has roped in public sector investment bank SBI Capital Markets Ltd for debt syndication worth Rs 5.75 B for its Krishna Drinking Water Project. HMWSSB is

implementing the project for providing additional water to Hyderabad from Krishna River to meet the future water requirement of the city and surrounding area.

➤ The AP govt is in the process of preparing a new plan of Krishna water pipeline project. The changes include further extending supply of two lakes by laying additional pipeline, to ensure the water to the twin cities by 2004. This would involve laying of a parallel pipeline to evacuate about 25 MGD through a new system in addition to the already mandated infrastructure.

➤ AP Cabinet has asked Hyderabad Metro Water to urgently examine the feasibility of bring Krishna Water to Hyderabad. The project envisages drawing 90 MGD water from Nagarjunasagar reservoir over distance of 138 km partly by a four stage pumping and partly by gravitation to a head of 481 m. (THE ASIAN AGE 141102, BUSINESS STANDARD 111202, BUSINESS LINE 171202)

**Dam for Tirupati shrine?** The Tirupati temple in AP is planning its own dam. The SC has asked the management of Tirumala Tirupati Devasthanams to seek the permission of the Centre and state govt for construction of the Kumardhara-Paspundhara dam. The dam would cover 80 Ha of the 52 597 Ha of the Sri Venkateswara sanctuary. The TTD had petitioned the SC seeking a direction to the Centre and state to allow it to construct a dam in the sanctuary. (THE TIMES OF INDIA 041202)

**Veeranam deal questioned** The Veeranam project deal in Chennai has raised questions of possible violations of the Tamil Nadu Transparency of Tenders Act. While the tendering agency Metrowater, has awarded the contract for Package IV to the third lowest bidder at Rs 389.7 M more than the dept rates after receiving fresh bids from the contractors, the Act does not provide for such revision of rates when the tender period is valid. The package IV involving laying steel pipeline from Ongur river to Porur. As for package III, the tender has been finalised at Rs 170 M above dept rates, involving laying of 115 km pipeline from Sethiathpoer to Ongur river. At least three multinational companies are involved in the project. Package III has been awarded to Puncak Niaga Holdings, a Malaysian joint venture, while Package II has been awarded to VA Tech Wabagh. Package IV has been awarded to Gammon India, a Russian Joint venture. (THE HINDU 071202)

**BWSSB plan to improve water supply** The Bangalore Water Supply and Sewerage Board has chalked out a master plan to improve water supply and drainage network at a cost of Rs 6.41 B to be completed by 2025, with an aid component from Australia. BWSSB claimed that the plan would reduce water leakage by 15%. (DECCAN HERALD 071202)

**Crisis in Savanur** There is water crisis in Savanur taluk in Haveri district as all the three lakes, all 50 borewells

and 20 wells have dried up. The Tungabhadra water supply project has been stopped for lack of funds and the Varadha river drinking water scheme stopped for political reasons. 80% of the villages are also said to be abandoned. (INDIAN EXPRESS 271202)

**Irregularities in Pump water schemes** The UNICEF had sanctioned Rs 1.36 M for Tara Pump Water Scheme for 200 primary and MV schools of the Dhemaji District in Assam. Rs 6 800 was earmarked for each scheme. According an inspection only Rs 2 200 have been spent per scheme, and the irregularities goes up to Rs 0.92 M. (SENTINEL 121202)

**Assam** The Rs 62 M water supply scheme at Biswanath Chariali town to be executed by Assam Urban Area Water Supply & Sewerage Board by March 2006 has been launched. The scheme would cater to a population of 31 292 families. (ASSAM TRIBUNE 041102)

**Jodhpur Water supply scheme** After Kaylana and Takhatsagar, the Ummedsagar dam would be developed as third reservoir for drinking water supply for Jodhpur in Rajasthan. The water Rajiv Gandhi lift canal will be diverted to Ummedsagar via Takhatsagar through a 80 m long tunnel. The govt has sanctioned Rs 20 M for this. At present the supply of 44 MGD is going on through Rajiv Gandhi lift canal. (RAJASTHAN PATRIKA 191202)

**Financial bungling in Ludhiana** The allegations of siphoning of massive funds from the development works of the Municipal Corp of Ludhiana have been levelled against several civic officials. The MCL had spent over Rs 55 M to add 50 tubewells in the city last year with each tubewell involving an expenditure of about Rs 1.1 M. The contractors had now offered bids to install similar tubewells at a cost of Rs 0.65 M each. (THE TRIBUNE 081102)

**Water scheme for Gohana** The 11<sup>th</sup> financial commission has approved a Rs 88.5 M drinking water supply scheme for Gohana town in Haryana. (THE TIBUNE 071102)

## WATER PRIVATISATION

**Law hijacked in selling Shivnath to the industry** The Chhattisgarh govt has given a stretch of 23 km of Shivnath river into a private company's hand for water supply. This BOOT agreement has been signed for 22 years to supply water to Borai Industrial Area in Durg District. The Chhattisgarh Govt would say that the State Land Revenue Code makes clear that all the surface waters, including rivers, are the property of the state, and thus it is well within it right to lease out any such property to any person. But according to the Supreme Court's ruling in 1996, "Public at large in the beneficiary of seashore, running water, air, forests and ecologically fragile lands. The state as a trustee is under a legal

duty to protect natural resources. These sources, meant for a public use, can not be converted into private ownership." (Down To Earth 301102, DRP 1202)

**Experts slam Kochi water project** The Kerala govt is defending Kochi Industrial Water Supply Scheme, tapping water from the Periyar River to ease the shortage in the Kochi-Aluva industrial belt amid criticism voiced by environmentalists, writers and the Opposition. To be commissioned in three years, the Rs 3.3 B project envisages supplying 250 MGD water for industries, commercial users and bulk consumers in greater Kochi area. According to state Industry Ministry only 2 % of the Periyar water was to be drawn under the scheme. The scheme is to be implemented on BOT basis, with private sector participation. Govt agencies will hold 11 % equity. Three companies, including Mahindra & Mahindra, had evinced interest in the project, he said adding that they had to be given four months to study the project.

➤ The Industry Minister has said that the Pariyar and Malampuzha Industrial Water Supply Schemes will be dropped from the Global Investors Meet. The move to sell the waters of the Periyar river and Malampuzha reservoir at the investment promotion show had come under severe attack. He said the proposal to draw the water from the Malampuzha for the industrial water supply had been dropped, as there would not be enough water in the dam, built to irrigate the rice bowl of Palakkad. He denied that the govt had signed a MoU to sell the Malampuzha water. In the case of Malampuzha, a MNC had reportedly made a bid by paying a non-refundable deposit of \$ 500, responding to the proposal advertised in the US media. (THE TIMES OF INDIA 241202, 251202, THE HINDU 301202)

**Maharashtra** Ulhasnagar Municipal Corp is planning to privatise water supply. A Newly set up civic Corp covering three towns of Sangli, Mupwad and Miraj wanted to privatise water supply, but citizens are opposing. (THE HINDU 171102)

**French company to collect water tax in Salt Lake A** French company has been asked to install water meters in Salt Lake City and collect water charges. The pilot project is a prelude to the eventual privatisation of water supply in the city and to impose 'water taxes', which has been accepted 'in principle' by the state govt. The further privatisation of municipal services like solid waste collection and tax collections are also on the cards. The Urban Development Minister informed that the French govt, keen to facilitate marketing of French water meter technology, has already sanctioned Rs 20 M for the pilot project, clearance from Central govt was awaited. (THE TIMES OF INDIA 091102)

**Thames Water Worst Polluter in England and Wales** Thames Water ranked as the worst polluter in England and Wales for two of the three past years is in race to rank as the worst again in 2002, according to the

Environment Agency in England. Thames has been convicted of environmental and public health violations 24 times and fined approximately \$ 700 000. In case after case, regulators found that the company was aware of conditions that led to raw sewage discharges and could have prevented the pollution. It appears, however, that Thames' corporate strategy is based on the notion that paying fines is less expensive than paying to maintain and operate water and sewer systems cleanly and safely. Currently in negotiations to be purchased by RWE AG, the German energy conglomerate, Thames' business model is being imported to the US as part of an increasing concentration and consolidation of MNCs pushing to privatize the world's water. RWE is acquiring American Water Works, the largest publicly held US-based water utility with operations in 29 states, and RWE plans to put its new US operations under Thames' supervision. In 1999, Thames was successfully prosecuted by the govt for pollution eight times. In 2000, Thames was fined nearly \$ 450 000 for pollution-more than any other company in England and Wales. In Dartford, England, in 1998, Thames was fined roughly \$ 70 000 for failing to promptly and competently stop sewage that was discharging into the River Cray. Officials later characterized the violation as "unique" in that the company admitted to in "knowingly permitting the discharge to the Cray." In 2000, a pumping station failure in southeast London resulted in raw sewage and toxic industrial waste overflowing into a street and flooding nearby homes. An estimated 22.5 M litres of raw sewage and waste was pumped into the River Thames. Thames was fined \$ 400 000, the largest fine ever under the waste management law. Thames had violated, and the court harshly criticized the company for its "complete disregard for human health and the environment." In 2001, a blocked sewer in Hampshire caused sewage to flow into the River Wey and lakes in the area. While Thames' contractors arrived on the scene quickly, their shift ended before they fixed the problem, and they did not clear the source of the discharge until the following day. Hundreds of fish died as a result, and Thames was fined more than \$ 30 000. ([www.citizen.org/documents/RWE%20Profile.pdf](http://www.citizen.org/documents/RWE%20Profile.pdf))

#### **Nicaragua: National Law to Suspend Privatisation**

When the govt of Nicaragua, at the behest of the WB and the Inter-American Development Bank, began to push for the privatisation of the major HEPs and the water utilities in the country, the people of Nicaragua decided that enough is enough. In August, the National Assembly unanimously passed a law to suspend private profit making in water. President of Nicaragua promptly vetoed the bill, but civil society groups and many of the delegates in the National Assembly are determined to override the veto. ([sgrusky@citizen.org](mailto:sgrusky@citizen.org))

**MNCs admit they can't deliver to the poor** JF Talbot, CEO of SAUR International (fourth largest water

company in the world) told the WB that the private sector could not deliver for the poor. He also rejected the possibility of cost recovery from users, saying that in developing countries "service users can't pay for the level of investments required for social projects, and that even the US and Europe subsidize water services. He concluded that without subsidies and soft loans from govts (which say they don't have the money so they have to privatise) there is no scope for privatisation of water by MNCs. (<http://www.world-psi.org/>)

**Vivendi indicted for polluted water** Vivendi, which attempted to privatize Johannesburg's water, lost another contract this year - this time in Puerto Rico. Its large Brazilian water venture Sanepar, which serves 7 M people in the Brazilian state of Parana was prosecuted for supplying contaminated water and it is being investigated over alleged financial irregularities.

In Argentina, there are serious problems since the economic crisis. Privatized water was based on protecting the multinationals, with prices indexed to the US dollar. Following Argentina's default on the external debt, a new law on "Public Emergency and Reform of the Exchange Regime" provided for the renegotiation of private water contracts. But the multinationals have ignored this law. (<http://www.world-psi.org>)

## FISHERIES

**Haryana prawn farming project** The Union govt has approved a pilot project for Haryana for the introduction of prawn farming in saline water. Rs 4.9 M as grant has been sanctioned to bring 20 Ha saline water area under prawn culture. 11.4 Ha water area has already been brought under prawn culture. (THE ECONOMIC TIMES 311202)

## QUOTES

"The belief that interlinking is necessary to ensure adequate and safe water supply to everyone and everywhere is wholly misplaced... It is difficult to believe that the interlinking programme has been worked out in sufficient detail to qualify for serious examination, leave alone immediate implementation."

Prof A Vaidyanathan (THE HINDU 260303, 270303)

"Any water resources engineer will immediately discard inter-linking of rivers as a flood control measure".

Dr Bharat Singh, former Vice Chancellor, Rourkee University (THE HINDUSTAN TIMES)

"Water has been impounded, structures have been raised, pumps are in place. But not a single drop of water has been available in the fields because there are no canals and the government has no money to operate the projects. It's a criminal waste."

PAP leader Bharat Patankar about MKVDC projects (INDIAN EXPRESS 031102)

"Anyone dying from hunger was dying from murder. The right to food was right protected by the international law, therefore the govts had a legal obligation to respect, protect and fulfil the right to food."

Jean Ziegler, in a report to UN General Assembly's third committee (TRIBUNE 131102)

The recommendation of the World Commission on Dams for constructive dialogue should be utilised to avoid polarized, negative debate in the future.

Statement from the Water and Energy theme (convened by the Int. Hydropower Association) at the 3rd World Water Forum

"The proud minister of an ostentatious court may frequently take pleasure in executing a work of splendor and magnificence, such as a great highway, which is frequently seen by the principal nobility, whose applause not only flatters his vanity, but even contributes to support his interest at court. But to execute a great number of little works, in which nothing that can be done can make any great appearance, or excite the smallest degree of admiration in any traveller, and which, in short, have nothing to recommend them but their extreme utility, is a business which appears in every respect too mean and paltry to merit the attention of so great a magistrate. Under such an administration, therefore, such works are almost always entirely neglected."

Adam Smith, Wealth of Nations, B.V. c. I, as quoted in: John Rae, The Social Theory of Capital, 1834 (1905 edition, p. 266)

Comment: Thanks are due to Peter Bosshard (IRN) for sending this. The quote above applies equally to the agendas of building of large dams and also to the latest fad of linking of rivers in India, to the exclusion of building or taking care of local systems.

## FLOODS

**Koshi victims** The Koshi 'diara' area in Bihar comprising parts of Saharsa, Supaul, Madhubani and Darbhanga districts are neglected by several state govts during the last decades. A population of 1.2 - 1.5 M in 304 villages situated between the eastern and the western Koshi embankments is probably the worst victims of the broken promises of the govts. Now, the opposition party has claimed it wants to take up the issue. Bihar govt is not implementing the provisions of Koshi Sufferers Area Development Agency, a statutory body established in 1987. "As the provisions of the KSADA have been accepted under an act passed by both the houses, their non-implementation is a gross violation of law". The present govt admits that the construction of Koshi embankments, to save people from the catastrophic floods every year had proved suicidal for those who lived between the two embankments. In Jan 1987 the then Congress govt had contributed Koshi Peedit Vikas Pradhikar to the rehabilitation and economic development of the people living between the Koshi embankments. On March 31, 2001, the rural development minister had disclosed in the state assembly that 'Koshi Peedit Vikas Pradhikar' had been rechristened as 'Koshi Kranti Vikas Pradhikar' and was kept under Koshi Kranti Yojna. The minister had claimed to have released Rs 20 M (out of an allotment of Rs 70 M) for the agency. But neither the re-organisation of KKDA could take place nor has the amount been received so far. (THE TIMES OF INDIA 101102)

**Rs 65 M sanctioned for 2 Punjab projects** The govt has sanctioned Rs 65 M for 2 projects in Sultanpur Lodhi subdivision to save 2800 Ha from water logging and ensure water flow in Kali Bein throughout the year. 200 cusecs will be released from the Mukherian HEP. A ring bund will be built at a cost of Rs 40 M in Mand area. (THE TRIBUNE 151102)

## POLLUTION

**Poison in Bhopal water** Almost 19 years after the Bhopal gas tragedy, the MP govt has admitted that the groundwater was contaminated by chemicals and waste dumped in and around the Union Carbide premises. The Bhopal Municipal Corp issued orders asking residents in the affected colonies not to use water from the three such tubewells for drinking. The decision follows a recent study conducted by govt laboratories under the Bhoj Wetland Project. Ironically, these samples had been collected in the presence of Gas Relief Minister Areef Akeel who, even as samples were being collected, was drinking this water to show residents that it was safe. The water contamination has been documented by studies in 1990. Two studies were done by the govt's own laboratories in 1991 and 1996.

When Minister had been shown the report he had said, "The govt has 25 such reports which show this water is safe, why go by this one report." The Minister was, however, unable to produce any report. (THE INDIAN EXPRESS 251102, DRP 0202 p. 34-5)

**HP rivers** The HP Pollution Control Board had taken samples of waters from Sutlej, Beas, Ravi and other small rivers from two dozen places and found water unsafe for human consumption. They said that waters downstream of the urban townships was polluted to such an extent that it had come to 'C' grade. Sutlej water at Slapper in Mandi district where the 'total Coliform' count both downstream and upstream was up to 2400 was the most polluted. At Bilaspur, another town downstream, it was 1600. Total Coliform counts in the Beas river at Pandoh barrage upstream and Mandi downstream was 2400. (THE INDIAN EXPRESS 101202)

**Cherrapunjee** World's wettest place Cherrapunjee is afflicted with severe water contamination. According to a report published by KIPSCIL and SSS (local NGOs), the source of the govt's Greater Sohra Water Supply Scheme had high radioactive concentration. The report said that the cause of the radioactivity is mining of uranium in the vicinity carried out by the Dept of Atomic Energy. As another source of contamination, water from the coal pits in the hills spill over and flows down in to the river during the monsoon. (ASSAM TRIBUNE 191202)

**Gomti desilting plan** The Central govt has approved a 4 B Gomti Action Plan in Uttar Pradesh. The second phase of the sewage treatment plan will also be launched and Water Transport Ministry had approved the scheme and had agreed to help the local administration in cleaning the river for making it water transportable, said the state Urban development Minister. (THE TIMES OF INDIA 211202)

**Sabarmati pollution** CPCB has placed Sabarmati River in the E category of polluted rivers — the worst category in terms of river health — the river water is not potable and is not recommended for any use that can directly or indirectly influence human health. Overexploitation of groundwater in the Sabarmati basin has been compounded by the Ahmedabad Municipal Corp releasing partially treated sewer water into the river. As against 70 MGD sewerage generated by the city, the two sewerage treatment plants at Pirana and Vasna have capacity to treat 46 MGD, thus allowing the remaining 24 MGD of untreated sewer to go downstream. The water released from the Narmada main canal into the Sabarmati recharged the five French wells operated by the AMC, but it could not change the quality of the river water. This has led to problems like waterlogging. (THE TIMES OF INDIA 231202)

**Industries pollute marine ecosystem** In Oct 1999, the Gujarat HC ruled against any further disposal of untreated industrial effluents into Amlakhadi river — a highly polluted water body of the state. The govt then planned a 55 km long pipeline to enable abutting industrial estates to discharge waste directly into the sea. But now, the project has raised questions about the long-term impact of industrial effluents on the marine ecosystem. According to the report of CAG, Gujarat has 170 industrial estates with close to 235 000 units. Of these 65 % of medium and large-scale industries and 45 % of small ones are polluting units. At present, these units discharge effluents into various streams and rivers, including Amlakhadi. As a result, the water body has turned into waste receptacle for over 1500 industries in Jhagadia, Ankalshwar, Panoli, Vilayat and Dahej estates. (Down To Earth 151102)

**Ghaggar Action Plan** The Centre has assured the Haryana govt that its Rs 3.54 B Ghaggar Action Plan would be considered for implementation in 21 towns along River Ghaggar and its tributaries passing through the state. The state govt had urged the Central govt to include this project in the National River Conservation Scheme. The aim of the plan, to be implemented in a phased manner, is to check pollution in the river and its tributaries — Tangri, Markanda, Omla, Begna and Kaushalaya.

➤ Punjab govt has framed a Rs 5.36 B Ghaggar action plan to check pollution as along its route it poses a major threat to the health of both humans and livestock and contaminated groundwater affecting land productivity. 33 towns on the banks of the river are affected. The project has been submitted to the Union Ministry of Environment and Forests. While 70 % of the project cost is to borne by the Centre, Punjab and the Local Govt Dept will bear the rest. (BUSINESS LINE 121202, THE TRIBUNE 251202)

**Yamuna Action Plan** According to the Minister of Environment & Forest, second phase of Yamuna Action Plan has been fixed at Rs 6.37 B. The project size has been finalized on the basis of prioritisation of projects under consideration of the Japan Bank for International Cooperation and availability of funds with the donor agency. JBIC and the Ministry of Environment and Forests have signed the Minutes of Discussions including the cost and the details of scope of works to be taken up in Haryana, Delhi and Uttar Pradesh. The Delhi component of works under YAP- II would cost Rs 3.80 B while the UP segment would cost Rs 1.45 B and the Haryana component Rs 625 M. Rs 502 M would be spent on the capacity building of National River Conservation Directorate and Project Implementing Agencies. (PIB 131202)

## ISSUES ABOUT RIVERS

**Mandovi conflict** The Centre has convened a meeting of the CMs of Karnataka, Maharashtra and Goa to find a solution to the Mandovi river dispute. The river originates in Karnataka, but 80 % of its water flows through Maharashtra and Goa before joining the Arabian Sea. In March 2002 Karnataka had got a clearance from the CWC to divert 7.56 tmcft (1000 M cubic ft) of water from the Mhadei basin. The Mhadei Bachao Abhiyan has also opposed any move to set up a tribunal. Karnataka wants to construct at least seven dams and three HEP by diverting the Mhadei water to river Malprabha. This in spite of the fact that Goa covers 1580 sq km of the catchment area of Mhadei basin while Karnataka covers only 375 sq km. Maharashtra covers 76 sq km of the catchment area.

➤ The Centre has decided to keep in abeyance the 'in principle' clearance issued by the Union Water Resources Ministry to Karnataka, for the diversion of 7.56 tmcft of water from the Mahadayi river. According to the Secretary, Water resources Dept of the Goa, govt would be furnishing details sought by the Centre. The state engaged several sources to collect data that includes a 75 - 100-year rainfall and yield figures. The Union Water Resources Ministry had stated that clearance was given on the premise that the Goa govt would have no objection to diversion of water. Experts and opposition in the state have strongly objected to water diversion. According to the Sahayadri Ecology Sensitive Area, a study revealed that diversion of water would lead to the submergence of five villages. (Rediff News 151102, THE TIMES OF INDIA 261202)

**Bihar Farmers on warpath over river** Sometime ago Bihar govt had launched a project to divert water from the Falgu River to far away areas through canals. In doing so — and after spending millions — Muhane, a tributary of the Falgu, dried up completely affecting over 0.5 M farmers in Patna, Jehanabad, Gaya and Nalanda districts. The farmers said, "We are prepared for a fight to finish. The move has pushed us to the brink of starvation. It is a matter of our survival." Muhane used to irrigate thousands of Ha of land. The leader of opposition in the state assembly demanded immediate opening of the river mouth to provide water to needy farmers. He said, "The two rivers are the lifeline of the region, but now the people are despondent and talking of suicides. The river bed has turned into a desert and the canals and small channels constructed by the farmers are without water." (BUSINESS LINE 141102, THE HINDUSTAN TIMES 161102)

**Maharashtra's claim for Krishna water** The Maharashtra govt has decided to stake claim for 300 TMC water from the Krishna River. The state's demand is for setting up a fresh tribunal under the Inter-State Water Dispute Act, 1956 to review the distribution Krishna waters and determine afresh the share to three

riparian states Karnataka, AP and Maharashtra. The argument is that of the 2 300 TMC water available in the Krishna river, 240 - 300 TMC goes unutilised. (THE PIONEER 291102)

**Cauvery row costs TN Rs 30 B?** The Tamil Nadu govt has claimed that the state has lost Rs 30 B because of the Cauvery water imbroglio. The loss is mainly due to the inability of farmers to sow and cultivate crop without Cauvery water. The river's delta accounts for nearly 17 % of the state's economy. In the current financial year, the growth rate in the primary agricultural sector is expected to dip an alarming minus 8.29 %, hitting an all time low. (THE STATESMAN 261102)

**Bhavani Diversion** Kerala and Tamil Nadu are on warpath on the Bhavani water sharing issue and both are blaming each other for breaching interstate agreements. The Kerala Irrigation Minister claimed that Kerala was planning a 2 m high weir and it would go ahead with the plan. He blamed that TN had not been showing the basic courtesy of honouring the inter-state agreements relating to Siruvani and Parmbikkulam Aliyar. He said TN had been drawing water from Siruvani in excess of its due share of 1.33 TMC ft. The TN CM has asked Kerala to give up its plan to construct Bhavani weir for diversion of water to the Bharatpuzha basin as the issue was before the tribunal. She pointed out that Kerala had already told the tribunal that it had extended the irrigation in the Attapadi valley to utilize 4.5 TMC ft water. TN fears that if the diversion is allowed, there would be no water flowing in Bhavani when the river crosses from Kerala to TN and would severely affect irrigation in some 0.2 M Ha and also drinking water schemes in Coimbatore. (THE HINDU, THE TIMES OF INDIA 261202, 271202, 291202, DRP 1202, p. 9)

## INLAND WATERWAYS

**Incentive Package** An outlay of Rs 6.68 B under the 10<sup>th</sup> plan, acquiring flat-bottomed vessels, roping the private sector and offering several incentives form part of the initiatives taken by the Shipping Ministry to optimise exploitation of the potential of Inland Waterway Transport. Several concessions had been provided to attract the private sector in the creation of IWT infrastructure and fleet operations. 30 % subsidy on building inland vessels, floating joint ventures with the Inland Water Authority of India, govt. participation in equity for BOT projects, Customs duty concession on equipment imports and floating of bonds by the IWAI were all part of a new policy. The Ministry had also revamped the Centrally-sponsored scheme for taking up water transport projects by offering 90 % grants to the states. In the case of NE and Sikkim, the entire amount would be provided by the Center as grant. (THE HINDU 161102)

**Plan panel moots NE waterways development** The Planning Commission has recommended development of rivers and waterways in the North-East and their extensive use to spur economic growth. In addition to developing the inland water transportation for bulk carriage and passenger movement as well as promoting packaged tours, the river and the other waterways should form another line of defence and security for the country. The Commission has recommended setting up of a fresh water counter-insurgent strike force in Assam. It has also advocated the case for special subsidies to encourage private corps and govt. depts. to carry bulk goods on inland water transport. (THE ECONOMIC TIMES 151202)

## FOODGRAINS MANAGEMENT

**Hunger in tribal MP** A survey conducted in MP found 6 785 children in 43 blocks of Shivpuri district severely malnourished — an average of 160 per block. In the worst affected village of the panchayat four people have reportedly died of hunger. Two each are said to have died in the neighbouring Gadla and Jigni villages. "Under Gram Swaraj, there will be a fund, which will be called Gram Kosh. It will have four components-Anna Kosh; Shram Kosh; Vastu Kosh; Nagad Kosh. Gram Kosh will include donations in cash and kind, and income from other sources." The Anna Kosh (food fund) should have been an ideal answer for people who have no food to eat but, it remains on paper. Gram Sabhas are supposed to compile a list of BPL families. Accordingly, these families get ration cards, which provide wheat for Rs 2 per kg. In reality, almost none of the affected tribals have BPL cards. The MP govt also boasts of the Rajiv Gandhi Food Security Mission. Launched in 2 650 villages of 17 districts, it was to create grain banks in all tribal villages of the state by Oct 2002. But in reality, no grain banks exist, for example, anywhere in the largely tribal Pohari tehsil. (THE INDIAN EXPRESS 1102)

**Govt confirms Rajasthan starvation deaths** The Centre has confirmed the starvation deaths in Rajasthan. The Central team has concluded that it is due to improper running of ration shops, very low offtake under PDS, deficiencies in providing ration cards and few or no Food for Work programmes. Earlier, a report prepared by the PUCL in alliance with Sankalp and BGVS found that people in these villages were consuming 'sama' (wild grass seeds). A high-level committee set up by the Rajasthan govt to enquire into deaths in three villages of Baran districts had ruled out starvation as cause. Hearing a PIL on the alleged starvation deaths in Baran district, a division bench of Rajasthan HC had issued notice to the state govt. Rajasthan has not cared to lift a sizable quantity of foodgrains offered by the centre. (BUSINESS STANDARD 131102, BUSINESS LINE 181102)

**Death by hunger is murder** Even as the world is richer than ever before and has adequate food to feed the masses every seven seconds, a child under the age of 10 dies due to the direct or indirect effects of hunger. The right to food was a right protected by the international law, therefore govt has a legal obligation to respect, protect and fulfil the right to food. The Special Rapporteur on the right to food, Mr Jean Ziegler, who, in a report to the General Assembly's Third Committee (Social, Humanitarian, Cultural), said, "Any one dying from hunger was dying from murder." The Rapporteur cited the "neo liberal" policy of the Bretten Woods institutions as an "obstacle" to the realisation of the right to food. He dismissed as "absolutely false" their claim that free trade and liberalisation would bring about the end of poverty and hunger. Access to land was fundamental and agrarian reforms must be a key part of the govt strategies at reducing hunger. Revealing their colours, the US representative attacked the Special Rapporteur because some African leaders had objected to US's offer of genetically modified food as aid. (THE TRIBUNE 131102)

**FFW irregularities** According to a study by the London based Overseas Development Institute; diversion of rice under the Food-For-Work programme has been a phenomenal 99 % in some cases. The report is part of a DFID study on "Livelihood Options" and is based on village-level surveys, mandal-level data and other secondary sources from the districts and state. The report states that between Sept 2001 and July 2002 AP received enough rice to feed 20 M people, but large-scale misappropriation meant that much of it did not reach the needy. Rice meant for the poor was sold to traders by contractors (although there were not meant to be any), with the connivance of mandal and panchayat officials as well as PDS dealers. This rice was then sold back to the FCI via rice millers or sold in other states. The report identified five major sources of illegal profit from the FFW programmes: claiming full rice quota for partially completed works, claiming rice for old works, putting claims for same work to different depts. and use of heavy machinery that displaced labour. The contractors also took the allotted rice, paying labourers in cash and selling the rice at profit. ([dnrm@panchayats.org](mailto:dnrm@panchayats.org))

**Grain Banks and corruption** Grain Banks started in most of the tribal areas in 1996-7 are corrupt. The grains meant for tribals are sold in open market with the involvement of officials. The Union Minister for ST has ordered an investigation in this matter. Over 691 grain banks have been opened in 11 states. Among these 313 have been opened in Orissa, 145 in MP and Chhattisgarh, 58 in Gujarat and 40 in AP. Under the scheme, Rs 105 M has been disbursed. (RASHTRIYA SAHARA 031102)

**Poor Numbers** According to the Planning Commission, some 100 M people who were BPL would be living in Bihar, Jharkhand and Orissa. In total, the number of people to fall into the category of poor would be 220 M at the end of 10<sup>th</sup> plan period. These states together with MP, Chhattisgarh, Maharashtra and W Bengal would account for a little more than 80 % of the poor in the country at the end of 10<sup>th</sup> plan. According to the draft 10<sup>th</sup> plan document, 43.18 % of Bihar and Jharkhand's population would be in the category of poor as against 41.04 % in Orissa. In 1999-2000, Orissa had about 47.15 % of its population BPL as against Bihar and Jharkhand's 42.6 %. (THE ECONOMIC TIMES 161202)

## AGRICULTURE

**Village for sale in Punjab** Harikrishnapura, located about 35 km from the Bathinda district is caught in a virtual debt trap. The village Panchayat with 125 families and population of 1200 has decided to sell the village. The total outstanding amount of loan from banks as well as private lenders is about Rs 50 M. Of the 480 Ha land available with residents, 200 Ha has either been sold or auctioned. For 100 Ha there is no provision for irrigation. On an average, every family has an outstanding loan of Rs 0.40 – 0.60 M. Most villagers took these loans from banks and private lenders for buying tractors, tubewells or seeds. Now no organization is willing to advance further loans to this village. About 90 % of the farmers now go to the nearby Ramfulpura town to work as labourers. For the past ten years or so, the village has not had a good crop. Two years back, four farmers had committed suicides, unable to repay their loans. The water, in this village, at the depths of 100 - 150 ft is polluted, and the land has also not remained worth ploughing. The district agricultural officers have already certified that the land in the village is not fit for agriculture. The main reasons for the present conditions in the village are the high flouride content in groundwater and American bollworm attacks on cotton crops. (Grassroots-PII 1102, DRP 1002 p. 31)

**GM soya destroying livelihoods & environment in Argentina** When Monsanto arrived in Argentina in 1996 with the first of its GM crops, it made attractive promises to Argentine farmers. Monsanto said its GM technology would make soya farming cheaper and easier. Farmers would only have to use the one pesticide, and they could apply it at any stage in the plant's development. Argentina's soya crop now has doubled to 27 MT, making the country the third largest producer of soya (after the US and Brazil) in the world. The growth in output is exclusively the result of an increase in the area of land under cultivation. Despite the early promises, GM soya have had 5 - 6 % lower yields than conventional soya. Because of the evolution of vicious new weeds, farmers have had to use two or

three times more pesticides than previously. Overall, total costs have risen by 14 %. Soya prices have dropped as a result of increased global production, and most farmers are actually worse off. Even more alarming is the ecological damage. Sales figures suggest that each year farmers are deluging the 10 M Ha of land under GM cultivation with 80 M litres of herbicide. This is killing off all forms of life except GM soya and is interrupting the normal biological cycles of growth. (The Ecologist 081002)

**ICAR refutes Pro-Agro's claims on GM mustard** The Indian Council for Agricultural Research has refuted Pro-Agro's claims over the superiority of the GM mustard over the commonly grown mustard varieties. According to the ICAR sources, only four field trials have been conducted under ICAR's supervision, against the company's claim of 69, and the data generated (on crop yield) so far 'does not substantiate' Pro-Agro's claims. This is the second claim of the private seed company that has fallen flat. Earlier, the company had claimed that its herbicide glufosinate is not approved for sale in India so the presence of a herbicide-tolerant gene in the GM mustard variety does not matter. But later it was found out that glufosinate is being used in tea gardens and is also being used for weed control along the highways and road tracks. It can therefore be easily diverted for use on mustard. With such false claims being made by Pro-Agro, shouldn't it be obligatory on the Genetic Engineering Approval Committee to black-list the company and at the same time question the go ahead granted by the two other committees: the Review Committee on Genetic Manipulation and the Monitoring and Evaluation Committee? Both the committees are under the Dept of Biotechnology. This also questions the entire basis of entrusting the private companies with research and evaluation. ([www.agbioindia.org/archive.asp?id=121](http://www.agbioindia.org/archive.asp?id=121))

**National Seed Plan** The Union govt has started the process of drawing up a 10-year national seed plan, with inputs from the states on the particulars of region wise seed requirement. The policy recognises the need for "an appropriate climate for the seed industry to utilise available and perspective opportunities, safeguarding of the interest of Indian farmers and the conservation of agro biodiversity". A National gene fund is to be established to ensure benefit sharing and a national seed map is to be drawn up to "identify potential, alternative and non-traditional areas for seed production of specific crops." Seed village Schemes and Seed banks will be launched to ensure timely availability of sufficient seed quantities, seed breeders will be eligible for crop insurance, and imports of seeds and the use of biotechnology to develop transgenic varieties will be encouraged. The policy also envisages expansion of India's share for the global seed export market from less than 1 % now to 10 % by 2020. *According to the FAO's recent food insecurity report,*

*India is the second worst performing country, after Congo, in the reduction of hunger levels. According to the report, population growth has outstripped agricultural growth, leaving greater absolute numbers of hungry people. The 10<sup>th</sup> Plan paper projects the requirement of certified seeds in 2006-7 at 1.48 MT, against 1.09 MT in 2002-3. (EPW 16-221102)*

**New policy role for CACP** Experts have voiced that the Commission for Agriculture Cost and Prices should act as a think tank for the Agricultural Ministry to facilitate policy formulation rather than confining itself to recommending MSPs. It recommended that the CACP should work like a tariff commission and suggest reform in taxes, subsidies, credit system, agricultural marketing and such other areas. (BUSINESS STANDARD 131102)

**BT cotton crop 'complete failure'** Research Foundation for Science and Technology has studied the result of commercial cropping of BT cotton. The foundation found that the crop has completely failed. Earlier the Genetic Engineering Approval Committee constituted under the Ministry of Environment and Forest had granted the permission for commercial production of BT cotton to the 'Mahico', the subsidiary of US based seed company 'Monsanto'. (SARVODAYA PRESS SERVICE 151102)

**Alternative of chemical fertiliser?** The Ahmedabad based Institute for Studies and Transformations says its work on theory of indirect nutrition using organic fertiliser over the past 12 years throws up interesting new possibilities and could help replace costly nitrogenous chemicals. "These experiments demonstrated it is possible to increase crop yields in rain fed areas under drought conditions by 40 — 300 % with very small quantities of pro-biotic fertiliser. IST is working on this theory since 1989. It says it would be possible to convert agricultural residues and animal manure into a class of low cost pro-biotic fertiliser. IST says it has worked with over 320 farmers in 60 villages in seven districts in Gujarat and Rajasthan. (THE ECONOMIC TIMES 041102)

**NFL introduces Neem-coated urea** A new variety of urea developed by the National Fertilisers Ltd and introduced during the Kharif season this year, is proving to be boon for the farmers of Haryana and UP. The farmers have reported a growth in average production ranging from 12 - 16 %. According to the NFL sources, the new urea is based on the research by the IARI, looking in to a unique property of neem in regulating the release of nitrogen in urea. (THE TRIBUNE 261202)

**Excise on processed foods sector** The task Force on indirect taxes has recommended that all food products now enjoying duty exemption be levied a 4 % excise (without Modvat credits set-off) or 8 % (with credit) from the coming fiscal. Further, the duty may be raised to a

uniform 8 % level (without any set-off) with effect from 2004-5. It has mooted an end to the excise exemption given now to most dairy products, edible oils, spices, coffee, sauces, ketchup, seasoning soups, etc. The report has suggested that the existing specific rate of excise of Rs 710 per T on sugar be replaced by a flat ad valorem rate of 8 % from 2003-4. At current average ex-factory realisations of around Rs 12000 per T, an 8 % duty would effectively raise the excise burden on mills by Rs 250 per T. (BUSINESS LINE 011102)

**Drought: Gujarat** The number of drought affected villages has gone upto 4546 with another 1799 villages being now added. Kutch and Jamnagar are identified as 100% drought affected, Rajkot is 90% affected, Surendranagar and Banaskantha is 70% affected and Patan 40%. In all nearly 100 taluks out of the 225 in Gujarat are affected. The drought is expected to cost the state Rs 2.5 B.

➤ **Rs 22.5 B aid for states** The Centre has approved a Rs 22.5 B calamity relief for 16 states affected by drought and floods based on recommendations of an inter ministerial group which assessed the disaster. A high level committee headed by Deputy PM approved assistance of Rs 19.99 B for 14 drought affected states and Rs 2.37 B for flood hit Assam and Bihar. The Centre contributes 75 % of the CRF while 25 % comes from the states. (THE TIMES OF INDIA – AHMEDABAD 111102, DECCAN HERALD 171102)

## SUGAR

**Demand for CBI probe into sugar scam** Political parties in Maharashtra has asked the Union Minister for Food and Agriculture to order a CBI probe into the multi-million sugar scam that involves 21 cooperative factories in Maharashtra. The illegal sale of sugar from the export quota has resulted in a loss of revenue to the tune of Rs 800 M. Relevant documents have been submitted to Union govt, including a copy of the report of the central excise board, Pune, in support of the charge of non-payment of the excise duty by 21 sugar factories. The board has in a letter to an MLA said that it would initiate criminal proceedings against the erring sugar cooperative factories adding that the board had recovered Rs 43.5 M as central excise duty from the factories. (THE TIMES OF INDIA 051102)

**Buffer Stock: Another Subsidy to sugar mills** Central govt has decided to create a maiden 1.5 MT sugar buffer stock. (INDIAN EXPRESS 161102)

**HC stays UP decision on cane price** Following a petition filed by the UP Sugar Mills Association, the Allahabad High Court has stayed the UP govt's decision to announce a State Advice Price (applicable only to cooperative and state owned mills) of Rs 950-1000 per T for cane to be crushed during the 2002-3 sugar season. The Court has held that paying even last years' SAP was beyond the capacity of the mills. Under pressure from the influential farm lobby, the SAP has

been raised from Rs 750-800 per T in 1997-8 to Rs 800-850 in 1998-9, Rs 850-900 in 1999-2000, Rs 900-950 in 2000-1 and Rs 950-1000 per T in 2001-2. The private mills, technically speaking, are required to pay only the lower Statutory Minimum Price fixed by the Centre, which averages Rs 751.4 to Rs 713.4 per T in UP. Every 100 kg of cane yields around 10 kg of sugar, six kg of molasses, four kg each of Bagasse and pressmud. (BUSINESS LINE 151102, 161102)

**Maharashtra to subsidise sugar export** The Maharashtra govt has decided to give a subsidy of Rs 1 per kg for export of sugar and asked the Centre to provide Rs 2 a kg. The new crushing season for the 150 plus cooperatives has begun, which is burdened by stocks of 4 MT. The state govt would defer by one year the sugar cane purchase tax and waive of for one year the fees leviable for giving crushing and export permission. Total amount thus forgone by the state thus comes to Rs 3.5 B in one year. (INDIAN EXPRESS, THE HINDU 161102)

## POWER OPTIONS

**AT LAST SOME SENSE: Delhi wants to bring down peak demand!** The Delhi govt wants to bring down the peak demand for electricity from 3100 MW to 2000 MW. Delhi CM said that 2003 would be observed as the Year for Conservation of Power and a campaign will be launched to bring down the peak demand. Trasco, in the meanwhile said that between April and Oct 2002, Delhi recorded energy shortage of 1.5% and peak shortage of 2.5% compared to 8.3 and 9.1% respectively in North India. Yet to see how these noble intentions will be put into practice. (TRIBUNE 131202)

**Power consumption for Lighting** Of the 105 000 MW of power capacity in India, electricity generated from 18 000 MW is used for lighting. This 18% consumption in lighting is much higher than in many other countries and there are huge saving possible. (BUSINESS LINE 111202)

**Cogeneration** According to experts, India accounts for around 85 % of the South Asian electricity generation, is in the midst of a serious energy crisis, with current generation significantly below demand. There is need to explore newer options. Cogeneration, also known as combined heat and power or CHP, wherever feasible is an effective solution to the problem. Cogeneration should be taken up as a national priority. Existing barriers related to policy, regulatory framework, fiscal incentives, technology upgradation and capacity building issues need to be resolved to utilise its complete potential. CHP basically refers to generation from a unit set up by industry for its exclusive consumption. Sugar industry in India is an example of how cogeneration can successfully help reduce dependence on fossil fuels. India, one of the leading sugarcane producers, has realised the potential of

bagasse, a by-product of the sugar industry for power generation and come up with various programmes and incentives to boost the sector. India produces 40 MT of bagasse, which is mostly used as a captive boiler fuel. The ministry of non-conventional energy sources and USAID have joined hands to create awareness among the Indian industry for shifting to CHP. A lead Program Partnership Initiative has been launched by the ministry, under which a Maharashtra consultancy company has identified 50 projects aggregating 500 MW spread over nine major sugar-producing states. Under the national programme, the ministry has also extended capital subsidies for cogeneration projects. Under its Greenhouse Gas Prevention Project, USAID provided technical assistance, training and grants amounting to \$ 7 M to private sugar industries in India to set up cogeneration activities. Eight such projects have been commissioned with aggregate installed capacity of 175 MW. They are currently generating and selling power to the grid. CHP and decentralised energy systems contribute upto 40 % of the energy supply in the US, Europe and other developed countries. Though sugar mills by design are cogenerative, other industries like textiles, cement and paper are shifting to CHP and producing heat and power from one source to meet their needs. However, the state govts and SEBs are not very forthcoming in granting licences for cogeneration projects. Experts say the govt agencies feel captive plants may adversely affect their finances and that cogeneration in the long future would become a source of firm power. Barely 300 MW of cogeneration has been implemented in India so far, much below the estimated potential of 3 500 MW, which can be attributed to several policy, financial, and institutional barriers. (Daily Excelsior 161102)

**TN biomass based power projects** Tamil Nadu Industrial Development Corp on the behalf of the Tamil Nadu Energy Development Agency has called for applications from private promoters to set up biomass-based power projects. TEDA has completed studies to assess the potential for biomass availability in 49 taluks and identified areas where projects with 2-5 MW or over 5 MW capacity can be set up. (BUSINESS LINE 091202)

**Waste based power project in Bihar?** Even as it being debated if waste based power projects are really environmentally friendly, the US based Inwire Plasma Technologies Inc has decided to set up a 30 MW waste based power project at Patna and would invest \$ 129 M. (RASHTRIYA SAHARA 191202)

**Tidal power plant in Sundarbans?** India's first attempt to harness tidal power for generating electricity would be in the form of a 3 MW plant proposed at the Durgaduani creek in Sundarbans delta of W Bengal. The ministry of non-conventional energy sources has already carried out a feasibility study and prepared a detailed project report. So far, 3 636 MW of generation

capacity has been installed in India through these non-conventional sources. In 1987, CEA had documented feasibility report for a 900 MW tidal power plant, but the project could not be undertaken due to the high costs involved. A project for harnessing ocean energy through water current turbine technology by revolving the blades of a windmill-like turbine standing on the seabed is currently in the experimental stage in India. This technology is being used in Norway. (IANS 131202)

## SMALL HYDRO

**Fund crunch stops work** The work on the 2x650 KW HEP being set up at Perinchani dam in Kanyakumari district has come to a halt due to non-provision of funds, according to TNEB sources. Work on the Rs 65 M plant was commenced in 1998 by a Pune-based private company, but it has been stopped halfway after erection of turbine and generator besides the construction of powerhouse. The project was to be completed by June 2002. (THE TIMES OF INDIA 261102)

**Orissa to sell mini HEPs 'lying defunct'** The govt has decided to sell 7 mini HEPs which were 'lying defunct'. The installed capacity of these units ranges between 300 KW and 2 MW. The plants had been declared unviable because of the cost of power offtake, which was over Rs 4 per unit. (POWER LINE Nov 02)

**Kerala opens small hydro for private funds** The govt opened up the small hydel sector for private investment. In the first phase, 62 projects with a total generation capacity of 162 MW will be put up for private participation through competitive bidding. According to Power Minister, the sector was being opened up for captive generation and for by IPPs (upto 25 MW) on BOOT basis for 30 years. For captive generation, all consumers of KSEB having a demand load above 2 MW will be illegible to bid for the projects. The allotment will be on the condition that 75 % of the generation of the project will not exceed 50 % of the annual requirement of the promoter. (BUSINESS LINE 131102)

**J&K opens small HEPs to private sector** The J&K govt has decided to open up micro and small HEPs to private sector. The CM said that the govt will give special incentives to the private sector. He said he would also seek the central govt's incentives for micro HEPs for private sector that are available to the state govt from the Union Ministry of Non-conventional Energy Sources. 21 small HEPs have been identified by the power development dept having installed capacity of 220 MW. Under the scheme of the MNES, special incentives are being provided to the hilly and NE states. Under this, the state govt is entitled to 90 % of the project cost as assistance. (Daily Excelsior 291202, BUSINESS STANDARD 311202)

**Neogal HEP** The HP govt has decided to approve extension for another 12 months to Om Power Corp for starting work on 15 MW Neogal HEP for which the agreement was signed earlier. (THE TRIBUNE 011202)

## POWER POLICY

**Uttaranchal invites Private Sector** Uttaranchal govt has formulated a new policy to privatise the hydropower sector and has invited private investments in 60 newly identified hydel blocks in the state. Out of these, 47 small projects with a capacity upto 25 MW and 13 projects with a capacity of 25-100 MW have been earmarked for private sector. (THE TIMES OF INDIA 261202)

**Regional power grid** The SAARC Technical Committee on Energy has recommended a regional power grid connecting Bangladesh, India, Bhutan and Nepal. Energy experts wanted commercially viable electricity flows from generating stations to load centres. These recommendations were finalised at the end of a meeting held in Dhaka. (THE HINDU 201102)

**CCEA nod to power plan up to 2007** The Cabinet Committee on Economic Affairs approved the extension of the accelerated generation and supply programme up to March 2007. Under this plan, state power utilities can avail of concessional lending with an interest subsidy up to 3 % from the PFC if they achieve the milestones agreed to in their MoU with the ministry of power. The interest subsidy has been reduced by 100 basis points and will be limited to the difference between the lending rate and the benchmark rate to a maximum of 3 %. The benchmark rate will be the prescribed rate of interest on 12-year govt securities. The CCEA also approved the Rs 10.44 B proposal for transmission system associated with NTPC's 1000 MW Rihand-II project. (BUSINESS STANDARD 261102)

**SE Asia regional power agreement** Six countries, China Thailand, Cambodia, Laos, Vietnam and Burma have agreed to form a regional power distribution system that would lay the foundation for an ambitious programme of HEPs in South Asian region with assistance from the ADB. The agreement signed by the govts of these countries commits the signatories to the eventual opening of an international market for electricity. ADB is working closely with the govts of "the greater Mekong sub-region" with an increased focus on power development. (POWER LINE Nov 02)

## POWER REFORMS

**Fund for power sector reform suggested** The Deepak Parekh committee has suggested the setting up a power sector reform fund. The committee was set up in March 2002 to suggest ways of toning up APDRP. It has suggested all existing liabilities of the state

utilities as well as existing receivables, privatisation proceeds, grants from the Centre and other donor agencies should be transferred to the PSRF. The committee is also in favour of the existing creditors. The committee has suggested that the state sector's losses, till a turnaround is effected, could be reduced through some contribution from various stakeholders. The committee has urged the regulatory commissions to try to institutionalise a credible multi-year regulatory regime with proper incentives for the utilities to pursue loss reduction and also agree to divert a portion of surplus from future operations to service liabilities from the past. (BUSINESS LINE 081102)

**New distribution privatisation model?** A new power distribution privatisation model in which first privatisation is restricted to select towns and cities is being preferred by the WB and also states in India after reverses suffered in Orissa and Kanpur. Once the initial attempts stabilise, it is proposed that the privatisation entity can also take up rural areas. (BUSINESS STANDARD 161202)

**Maharashtra to trifurcate SEB** Maharashtra is to trifurcate its SEB for Generation, Transmission and Distribution. Pune and Navi Mumbai would be the cities where the privatisation of distribution would be first tested and the practice would spread to other areas. (THE HINDU 171102)

**TN reforms** The TNEB plans to invest Rs 80 B in the power sector during the 10<sup>th</sup> plan. Around Rs 59 B is to be utilised for T&D, Rs 12 B for generation, Rs 4.9 B for rural electrification, Rs 3.6 B for R&M & Rs 200 M for field surveys. (POWER LINE Nov 02)

**Farm power** Eight states that were most generous towards farm power consumers lost out on revenue to the tune of Rs 19.84 B last financial year, which could have been moped up by charging a nominal tariff of Rs 0.50 per unit. These states include AP, Bihar, Karnataka, MP, which charged a token amount and the TN and Punjab, which have been providing free power to farmers, as per Planning Commission. The biggest loser among these states has been TN, which stood to increase revenue by over Rs 4.95 B had it imposed a Rs 0.5 tariff for farmers in 2001-2. Punjab lost Rs 4.1 B. AP lost an opportunity to raise Rs 4.34 B, while MP could have raised Rs 4.53 B introducing the Rs 0.5 tariff for farmers.

➤ Energy Experts, politicians, engineers, govt officials and NGO representatives were all unanimous in view that power supply to agriculture should continue to be subsidised and the agriculture power connections should be metered. (BUSINESS LINE 161202, BUSINESS STANDARD 311202)

**MP power tariff hike** The MP Electricity Regulatory Commission hiked power tariff by 30 %. Farmers have

been the hardest hit. Those paying a flat electricity rent would now have to pay 67 % more. For low-tension consumers, the hike varies from 19 - 50 %. Farmers with metered connections and low-tension consumers have been exempted. According to the MPREC sources, the average hike was 15 %.

➤ The MP govt has decided to extend an additional subsidy of Rs 1.5 B, besides the existing subsidy of Rs 7.36 B to MPSEB to nullify a substantial portion of the electricity tariff increase cleared by the regulatory commission for certain categories of consumers. The maximum subsidy of Rs 879.5 M would go for meeting the burden of proposed tariff increase from Rs 2.24 to 2.78 per unit for urban consumers using less than 50 units. For the high-tension irrigation, the tariff was Rs 2.76 per unit. The govt has decided to give subsidy of Rs 16 M and level the HT irrigation tariff with the LT rate of Rs 1.25.

➤ The MPERC has rejected the state govt's proposal to reduce power tariffs and directed the state govt to file a fresh proposal before the commission along with an affidavit. The MPERC has also objected to the new captive power policy of the govt. (THE HINDUSTAN TIMES 021202, THE HINDU 171202, POWERLINE 1202)

**Gujarat** The GEB has decided to modernise its ageing power projects at a cost of over Rs 15 B. the Board is expecting a major jump in demand for power in the near future and is now gearing up to increase its plant load factor through the modernisation programme.

➤ British power major PowerGen as a fall out of its takeover by German major Eon AG, has decided to exit the 655 MW Paguthan project. PowerGen will divest its residual 20 % holding in the project to the China Light & Power group of Hong Kong at an undisclosed price.

➤ The govt has filed a petition with the GERC to reopen the PPA signed with the independent power companies operating in the state for renegotiations. The govt has also requested the promoters of all the three IPPs in the state (Essar Power, Gujarat PowerGen Energy Corp and GIPCL) to consider its request. (THE ECONOMIC TIMES 261202, 271202, BUSINESS STANDARD 261202)

**Single tariff for CESC power in W Bengal** The WBERC has announced a single rate of tariff for all categories of consumers of RPG-controlled CESC, linking the rates to the average cost of supply. After long arguments of the state govt, the WBERC delivered its tariff order. The rates now fixed are Rs 3.81 per unit for 2000-1 and Rs 3.9 for 2001-2 "for every category of consumer", according to CESC tariff order. The order said that it is still open for the state govt to indicate its intention to subsidise any class of consumers. (BUSINESS LINE 171202)

**No change in UP** The Energy sector in UP had been trifurcated in Jan 2000 as UP Transco, Power Generation Corp and Hydro Generation Corp. The WB

had also sanctioned Rs 150 M for power reform. This loan agreement has been implemented from August 2000. Till date over 5 B has been spent but there are no changes in power sector. In the name of reform the authorities have privatised the 800 MW Jawaharpur thermal plant, 567 MW Roja thermal plant, 400 MW Vishnuprayag HEP, 330 Srinagar HEP and diesel based 10 different projects of 1100 MW. Till date these units have not started generation. (RASHTRIYA SAHARA 101202)

**Panel approves the electricity Bill** The controversial Electricity Bill 2001 has been cleared by a parliamentary panel. The Bill proposes to rationalise electricity tariffs and ensure transparency in the policy regarding subsidies. Consolidation of laws relating to generation, transmission, distribution, trading and the use of electricity are also proposed through the Bill. It will also give centre powers to formulate a national electricity policy, and permit stand-alone power generation system in rural areas. (POWERLINE 1202)

## POWER GENERATION

**Public Washing of Dirty Linen in Punjab** The episode leading to first removal of Chief Engineer of PSEB Padamjit Singh and then his reinstatement as Chief Engineer (Enforcement) led to exposure of a number of irregularities. Unfortunately, the whole episode died without providing answers to a number of disturbing questions. Firstly, it seems Singh was removed for cancelling the agreement with KERPL, a private trader who claimed it could supply power to PSEB from Orissa, (as reportedly KERPL have been appointed sole selling agents of GRIDCO to supply power in North India) but could not support the claims with necessary documents. Singh favoured govt owned Power Trading Corporation in stead, but some powerful elements within the PSEB Board seemed to favour the private trader who could not provide some basic document to support its claims. PTC offered to send power from Ranganadi HEP in Arunachal Pradesh, but PSEB board members claimed that all three units of Ranganadi HEP were not working and there was no proper transmission link between eastern and northeastern grid. It was claimed that an MoU was signed with PTC for supply of power at the rate of Rs 2.15 per unit even though KERPL has agreed to supply power at the rate of Rs 2.06 per unit. Singh said that behaviour of KERPL was suspicious right from the beginning as right from the beginning it was dealing with the highest level, violating normal practice. Within two hours of Singh declaring the KERPL's offer as infructuous, he got transfer orders and the new incumbent was asked to withdraw the letter.

The PSEB Board members charged Singh with arbitrarily interacting with Malana Hydro Power Company leading to a loss of Rs 16.4 M to the PSEB.

Board members claimed that they had negotiated with Malana to supply 75 MW of power at Rs 2.3 per unit, but Singh wrote to the company to supply power at Rs 1.78 per unit. The Board members claimed that since Malana company has provided power to Haryana at Rs 2.3 per unit, PSEB could get at that rate and instead PSEB had to buy power from Goa and Uttaranchal from PTC at the rate of Rs 2.35 and Rs 2.45, resulting in loss to PSEB. But PSEB Engineers Association made it clear that Malana Company had supplied power to DVB at rates below Rs 2 per unit.

The PSEB Board members also charged Singh for transferring 55.8 MU power to Haryana, MP and Rajasthan through PTC without requisite permission even as PSEB was facing power crisis. However, this charge of board members sounds strange as board members get daily power transfer figures and at no stage over the months they raised any objections.

The trouble with this whole episode is that it has raised many questions and as PSEB technical Services Union has demanded, only an independent enquiry can reveal the truth. (THE TRIBUNE 061202 to 121202)

**Gandhinagar plant faces water shortage** The 870 MW coal-based TPS at Gandhinagar has been facing water shortage as the level in the bore wells dug up in the Sabarmati riverbed has been sinking for quite some time. Earlier, its two units were closed due to non-availability of water and the reason attributed was the drying up of the Sabarmati River — its main source. (THE TIMES OF INDIA-A 051102)

**34 power projects shelved** According to the survey by Centre for Monitoring Indian Economy, in the past year 34 power generation projects worth Rs 862.66 B have been shelved. The Rs 80 B Pipavav and the Rs 23.69 B lb Valley power project failed to make any progress. (BUSINESS STANDARD 191102)

**Foreign investors pulling out** The Minister of State for Power said that foreign investors have pulled out of various power projects due to delays in achieving financial closure. "Inability of the SEBs to provide adequate payment security to the private sector power projects has been one of the main reason due to which these projects could not achieve financial closure." S Kumar's promoted Maheshwar HEP in MP had seen US power utility Pacgen withdrawing in 1998, German power majors Bayonwerk and VEW in 1998 and Ogden Energy of US in Aug 2001. Cogenatrix Energy Inc withdrew from Mangalore Power Company in Feb 2000, Ogden Energy exited from 420 MW Berkeshwar thermal project in W Bengal. Daewoo Power terminated its 1070 MW Korba east thermal project citing inability of MPSEB to provide payment security. Mirant Asia Pacific Ltd withdrew from 3600 MW Hirma thermal power project due to payment security and other reasons. Mirant Corp walked out of 500 MW Balagarh

project in W Bengal citing poor financial health while French major EdF pulled out of 1082 MW Bhadravati thermal power project due to lack of escrow agreement. (THE FREE PREES JOURNAL 291102)

**Nuclear power plans** The Dept of Atomic Energy has proposed 1 000 MW reactors in coastal sites and 700 MW reactors in inland locations. The site selection committee has recommended the desirability of building future nuclear power stations in coastal sites and identified inland locations. According to the committee, the existing sites after optimum expansion can accommodate a total capacity of 14 000 MW, from the present installed total of 2 720 MW from 14 operating nuclear power plants. The chairman of the site selection committee said the Centre has assured financial support to the NPC up to capacity building of 10 000 MW in the form of part equity. The rest has to be raised from the internal sources. After achieving 10 000 MW, the govt was contemplating private sector participation. The idea is to scale up the installed capacity to 40 000 MW over a period of time. (BUSINESS LINE 111202)

**J&K** Against the peak demand of about 1 437 MW the installed capacity is 547 MW. During the lean period, when the river discharge reduces to a trickle, the generation falls to 200 - 250 MW. The state CM has requested to NHPC to start work on 7 projects that were handed over to it for generating 3 000 MW by 2010. The CM conveyed to the Centre and the Planning Commission that the Rs 95 B had been approved in the 9<sup>th</sup> plan but allocation made were Rs 88.5 B. He also brought to the notice of the Central govt and the Planning Commission that the outlay of Rs 145 B for the 10<sup>th</sup> plan does not match with the state's targeted growth rate of 6.3 %. The CM has suggested to the private sector to set up power projects. He said that under the Indus Water Treaty, the state cannot harness water of three rivers — Jhelum, Chenab and Sindh — for irrigation and power generation without the approval of Pakistan. The state govt had conveyed to the Centre that the yearly losses owing to this treaty amounted to Rs 60 B. (THE TRIBUNE 231202)

**DVC plans** The DVC has decided to set up a 2000 MW power plant at Lodhma village in Ramgarh in Jharkhand. The DVC selected Lodhama village due to its strategic location amidst coal belt and nearby Damodar River. The cost of the plant is likely to be Rs 90 B. The corp is also planning to set up 1 000 MW power plant in Bardwan district of W Bengal. The estimated cost is Rs 42 B to be commissioned in 2006-7. (THE HINDUSTAN TIMES 011202, POWERLINE 1202)

**NTPC pleas turned down** The Union Finance Ministry has turned down the NTPC's demand for a 10-year dividend offer waiver. NTPC had sought the waiver as means of the tiding over a shortfall in resources for sustaining its capacity expansion programme of the 20 000 MW over the next two plans. The NTPC had

projected that the dividend waiver would result in savings of Rs 175 B. The main reason claimed for resource crunch is the CERC's new availability based tariff order. NTPC paid a dividend of Rs 7.47 B to the govt in 2000-1. On average, its dividend payment in the has remained around Rs 5-6 B. (BUSINESS LINE 051202)

### Power generation capacity

MW

Year	Thermal	Hydel	Nuclear	Total
1990-1	45 767.91	18 753.42	1 565.00	66 086.33
2001-2	74 428.81	26 261.23	2 720.00	103 410.04

The govt have after taking into account relevant aspects has set a target to add 41 110 MW of capacity during 10<sup>th</sup> plan consisting of 14 393 MW hydro, 25417 MW thermal and 1300 MW nuclear. (PIB 041202)

**Nalco's Eighth Unit commissioned** The Rs 4.2 B seventh unit of 120 MW at NALCO's captive power plant at Angul has been commissioned; bringing the total capacity to 840 MW. (BUSINESS LINE 031202)

### POWER FINANCE NEWS

**PFC to fund Nagarjuna project sans guarantee** The PFC has agreed to fund the 1015 MW project by Nagarjuna Power Corp Ltd without any govt guarantees. The Karnataka govt in its final clearance had indicated that the security package, recommended by the rating agency CRISIL, was acceptable to it. PFC has now agreed that the entire project funding could be done if the payment security mechanism is backed by a revolving letter of credit and tied to a reform linked fund package. (BUSINESS LINE 271102)

**PGCIL plans** PGCIL has prepared a plan to invest Rs 710 B up to end of the 11<sup>th</sup> plan. Rs 510 B would be collected through internal sources. It is hopeful of private investment. (DAINIK HINDUSTAN 201102)

**ADB loan for PFC** The ADB has sanctioned a loan of Rs 7.2 B to PFC to support reforms. The funds are to be on-lent by PFC to SEBs that make a firm, milestone-linked commitment to carry out power reforms. The funds will go to finance projects that reduce system losses, improve operational efficiency and enhance service delivery. (THE ECONOMIC TIMES 131202, POWERLINE 1202)

**Kohli committee report** The Kohli committee, constituted to look into power sector financing during the 10<sup>th</sup> & 11<sup>th</sup> plans has submitted its report. In order to raise Rs 9 000 B by 2012 to enhance the installed base by 100 000 MW, the committee has recommended the imposition of a cess on the power generated, sale of low performing assets, multilateral loans and the establishment of an India Power Fund. The committee has also called for special power bonds called Vidyut Vikas Patras as well as long-term debt instruments for hydropower. (POWERLINE 1202)

**BSES** The BSES has raised \$ 120 M through foreign currency convertible bonds at a coupon rate of 0.5 % per annum with a tenor of five years.

➤ **Bad Shape** BSES' affairs have been steadily going down since the beginning of 2002-3. Profits have significantly declined in the first six months. BSES is beset with problems in Kerala and Orissa. However, the implementation of the power sector reforms was likely to unfold new opportunities of BSES. Reliance, holding 44% shares of BSES has offered to Financial Institutions to buy BSES shares at Rs 230.1 per share. FIs, who hold 36% of BSES shares were made offer by the same party in May 2000 at Rs 255 per share. (THE HINDUSTAN TIMES 231202, POWERLINE 1202)

**REC loan to AP Transco** The REC will provide an additional loan of Rs 10 B to AP Transco for improving the voltage level in rural areas for agricultural pumpsets in addition to reducing the line loss. (POWERLINE 1202)

**Demand for scrapping BPL PPA** Opposition parties in AP have demanded that the govt and the regulator should consider scrapping of PPA with 500 MW BPL coal based Project to come up at Ramagundam as the cost of the project at Rs 28 B is too high & cheaper options are available. (BUSINESS LINE 081202)

### GOVERNANCE

**National Forest Commission** The Union govt has decided to set up the first-ever National Forest Commission to review the man-forest interface for sustainable development. The Commission will also examine the current status of forest administration and suggest changes to make it more practical and effective in achieving a balance between the needs of the society, especially local communities, and the protection of environment. (THE HINDUSTAN TIMES 121202, THE TIMES OF INDIA 131202)

**Biodiversity Bill gets Parliament nod** The Biodiversity Bill has got the final nod from the Parliament. It seeks to check biopiracy, protect biological diversity and local growers through a three-tier structure of national and state boards and local committees. These will regulate access to plant and animal genetic resources and sharing of the benefits. The proposed National Biodiversity Authority will deal with all cases of access by foreigners. Its approval will be required before obtaining any intellectual property rights on an invention based on a biological resource from India, or on its traditional knowledge. It may oppose such rights given in other countries. On the one hand experts describe Bill as a "confused effort" and the other hand Environment Ministry officials say Bill is "weak in conservation". The MPs also feel "too little-too late" has been done. (THE TIMES OF INDIA 121202)

## WE AWAIT YOUR RESPONSES

**Petition on Wetlands Protection** Kindly Publish the following in your issue:

The Public Interest Litigation filed by me in the Supreme Court for protection of wetlands throughout India was admitted by the Honourable Supreme Court in 2001 (WP (Civil) NO 230/2001, M K Balakrishnan and others vs Union of India and others). Now notice to all respondents Viz. Union of Indian all states and UTs of the Union has been served. The case will be listed for final hearing within 2-3 months. Those persons/ organisations who are interested in protecting the wetlands of their region in any part of India can contact the following.

M K Balakrishnan, 37, Lawyers Chamber, Supreme Court, New Delhi 110 001, Tel: 2307 0449 (Lounge)

Thanks for sending DRP Feb 2003. The DRP issue is full of facts and the focus is very apt, besides it is very analytical and succinctly articulates the issues in the water sector with a clear perspective. Indeed, you deserve complements for the patience, perserverance and imagination in putting all this together.

Prof HM Desarda, Aurangabad

I wish to congratulate you for excellent and very valuable information that DRP contains. The discussion is not only very valuable for India but also for other countries. The message of development is that is it for the people and by the people and that otherwise it has no "taste" and no meaning. Keep it up.

Irena Knehtl, Sanaa, Yemen

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