

Lead Piece

11th Five Year Plan Approach paper

Any hopes for a people friendly 11th Plan?



It does not seem to be the case. A quick look at the Approach Paper (AP) for the 11th Five Year Plan (April '07 – March '12) from Planning Commission, Govt of India, specifically the issues that concern us at *DRP* (Agriculture, water, power and environment) suggests that we are likely to see a rehash of the old programmes, with little innovation or attempt to learn from the mistakes of the past. Let us see these issues from the AP.

Agriculture Broadly, the AP objective (p 15) is, "It is, therefore, proposed that the target growth rate for the 11th Plan be 8.5 % per annum", with agriculture growth rate at 3.9%.

However, this is very ambitious looking at the experience from recent plans, "One of the major challenges of the 11th Plan must be to reverse the deceleration in agricultural growth from 3.2% observed between 1980 and 1996-97 to a trend average of only 1.5% subsequently. This deceleration is undoubtedly at the root of the problem of rural distress that has surfaced in many parts of the country. What is more, the problem is also not a purely distributional one, arising out of the special problems of small and marginal farmers and landless labour. In fact, the deceleration is general affecting all farm size classes. To reverse this trend, corrective policies adopted must focus not only on the small and marginal farmers, who continue to deserve special attention, but also on middle and large farmers who too suffer from productivity stagnation arising from a variety of constraints." Moreover, "Not only has agricultural growth been low in the last decade, the prices received for agricultural products have also failed to keep pace with the costs or the general price level and, as a consequence, profitability has declined" (page 18). YK Alagh notes (Indian Express 070706), the AP does not give a road map for improved profitability for farmers.

"Actual growth of agricultural GDP, including forestry and fishing, was only 1% per annum in the first three years of 10th Plan and even the most rosy projections for 2005-06

and 2006-07 would limit this below 2% for the full five year period. The challenge posed is to at least double the rate of agricultural growth."

As A Ravindra of WASSAN notes, the philosophy under 'agriculture' is more or less green-revolution type – with a focus on soil testing and micro-nutrients instead of Soil Health.

To recommend quick environmental clearances in the interest of investments, that too in the face of current state of affairs including shoddy environmental impact assessments, non existent implementation of environmental management plans or conditions mentioned in environmental clearances and total inaction of the authorities in the face of abject and repeated violations. The Approach paper could not have been more divorced from the ground realities.

Water Management and Irrigation AP (p 21-22): "Water is a critical input for agriculture and this calls for expansion of irrigation, where it is possible and better water management in rainfed areas where assured irrigation is not possible. This is clearly an area where past policies have been

inadequate. Performance in expanding irrigation has been disappointing with resources being spread thinly over many projects and a large number of irrigation projects remaining under construction for many years." However, after accepting that past policies have been inadequate in this area, the AP has nothing new to offer.

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AP: "The Bharat Nirman programme *inter-alia* envisages creation of 10 m ha additional assured irrigation during the 4 years period (2005-2009). To achieve this, the pace of potential creation will have to be scaled up from 1.42 m ha per year in recent years to 2.5 m ha/ year. Of the new potential envisaged under Bharat Nirman, about half is planned for 2007-08 and 2008-09 i.e., first 2 years

of the 11th Plan. Assuming the same rate of creation of continues thereafter, a total of about 11 m ha of new potential can be expected in the 11th Plan consisting of 5.5 m ha in major & medium irrigation, 3.5 m ha through minor irrigation and about 2.0 m ha through ground water development. In addition, another 34 m ha of land is to be restored through modernisation of major, medium and minor projects and restoration of tanks."

These are unacceptable & unrealistic projections. When over half of the irrigated areas in India are dependent on groundwater and there remains huge unexploited potential, particularly in the eastern India, the 11th plan target of irrigated areas has less than 20% area sourcing groundwater. As it became clear also from the mid term appraisal of the 10th Plan, the cost per ha of area irrigated from minor irrigation is much lower than that from major and medium projects. And yet 50% of target and much larger proportion of resources continue to be reserved for big projects.

AP: "Along with expansion of irrigation facilities, steps need to be taken to ensure that water is distributed equitably and that it is used efficiently. The past pattern where tail enders are denied water because upper end users appropriate it for highly water intensive crops must be avoided."

In reality, the implementation of big projects is going in exactly opposite direction. For example, in case of Sardar Sarovar Project, water is first made available (for several years) to the initial reach of the command area that is already water rich and that is taking up water intensive crops. Thus by the time Command Area Development would reach the tail ends, the initial command area would have already established water intensive cropping pattern. At a latter stage, even if there is an attempt, it would be impossible to change the cropping pattern and attendant high water use, depriving

the tail enders, in this case the drought prone areas of Kutch, Saurashtra and North Gujarat.

AP: "Participatory Irrigation Management by democratically organised water user associations empowered to set water charges, collect and retain substantial part of it, would help to maintain field channels, expand irrigated area, distribute water

equitably and provide the tail enders their just share of water. Experience in Gujarat has shown the effectiveness of such PIM. The 11th Plan must expand reliance on PIM on a large scale."

However, experience has shown that in many areas, PIM has failed for many reasons, including the fact that there is no role for the farmers in choosing the

option for irrigation in their area, but participation is sought only after all the decisions have been taken, all the costs incurred. 11th Plan could have started with recommending participation right from planning and decision making stage onwards. That would also have helped remove the distortions due to over emphasis on large projects.

As noted by the World Bank's report in 2005, *India's Water Economy: Bracing for a Turbulent Future*, annual financial requirements for repair and maintenance of existing irrigation infrastructure is of the order of USD 4 B, equal to over Rs 17 000 crores. We are unable to

allocate a fraction of that money. The irrigation infrastructure is performing poorly, as is evident even from the 10th Plan document, the mid term appraisals of the 9th and the 10th plan, and yet there is nothing in the AP to work in that direction. The storage capacities are silting up at the rate of 1.4 BCM per annum as per the report of the GOI's National

Commission on Integrated Water Resources Development and Management, and nothing is being done to arrest that destruction. The existing large water storages are not being used, as shown by SANDRP (South Asia Network on Dams, Rivers & People). Over the last 12 years, on an average, each year at least 36.25 BCM storage space has remained empty for each of the last 12 years. The least the Planning Commission can do is to take up studies and action plans to reverse this situation, but AP has nothing to reflect that.

11th Plan Irrigation Target: "About 11 m ha of new potential can be expected in the 11th Plan consisting of 5.5 m ha in major & medium irrigation, 3.5 m ha through minor irrigation and about 2.0 m ha through ground water development. In addition, another 34 m ha of land is to be restored through modernisation of major, medium and minor projects and restoration of tanks." It seems the love affair with big projects continues in spite of all the past experiences.

On Water Access the Approach paper figures are instructive: "Out of the 14.22 lakh habitations in the country, although more than 95% coverage was achieved prior to Bharat Nirman, about 2.8 lakh habitations have slipped back from either fully covered to partially covered category. Another 2.17 lakh habitations have problems with the quality of water". That is 35% habitations do not have access to adequate drinking water.

Why McKinsey? Its worth noting in this context that McKinsey & Company, a global management consulting firm, is currently working with the Confederation of Indian Industry on a new initiative involving India's rural markets for the Prime Minister's Office. This work is based on the Bharat Nirman program, including irrigation and McKinsey is examining the role of the private sector. Why is the PMO engaging McKinsey for sectors like irrigation? Does this also mean that the govt is pushing for role of private sector in Irrigation? This only shows the totally wrong path that the govt is on.

Groundwater AP: "Water is also critical for the more than 60% of cultivable land that is unirrigated and rainfed. Ground water management is critical for these areas and will therefore need much more focused attention in the 11th Plan. Unless this is done we run the risk of a deepening agricultural crisis in dryland areas. Water must be recognised as a scarce resource and every drop needs to be used efficiently. In this context, it must be recognised that some existing policies followed by state govts contribute to the problem. Continued provision of free power by some states and highly subsidised power by all states is leading to an increase in semi-critical, critical and over exploited areas of groundwater use, which already cover 29% of the blocks in the country."

Here again in stead of limiting itself to the politically unacceptable issue of free power to farmers, the Plan could have recommended some clearly defined policy, institutional and legal steps to ensure that groundwater management becomes the responsibility of the communities (with adequate safeguards for access to water for SC, ST and backward classes).

Watershed Development AP: "Watershed management, rainwater harvesting and ground water recharge can help augment water availability in rainfed areas. Building structures for water management and managing them also provides opportunities for employment generation in rural areas. In addition the enhanced productivity of land will generate its own employment. The National Rainfed Areas Authority to be set up in 2006-7 provides a vehicle for developing

concerted action plans for rainfed areas in close consultation with states."

AP: "With an estimated 80 m ha needing treatment, and average expenditure of Rs 10,000 per ha, the total requirement of funds is about Rs 80,000 crore. For this magnitude of funding to be feasible during the 11th Plan, it is absolutely essential that these programmes be converged with or at least supplemented by the Employment Guarantee programme funding local level schemes which conserve moisture and recharge ground water."

In reality, the implementation of big projects is going in exactly opposite direction. For example, in case of Sardar Sarovar Project, water is first made available (for several years) to the initial reach of the command area that is already water rich and that is taking up water intensive crops. Thus by the time Command Area Development would reach the tail ends, the initial command area would have already established water intensive cropping pattern.

National Agricultural Policy for the Rainfed areas Even as over 60% of the cultivable land in India remains rainfed, India has no National Agricultural Policy for Rainfed areas, as is also clear from the AP, in spite of the long chapter on agriculture. Demanding a policy for Rainfed area, Ravindra A from WASSAN (Watershed Support Services & Activities Network) from Andhra Pradesh makes following points:

⇒ At present Policies and public support systems designed for irrigated areas are extended to rainfed areas, there is no separate treatment for rainfed areas. We need a fresh perspective for rainfed areas.
 ⇒ Watershed programmes seem to be "The Policy" for rainfed areas.
 ⇒ While there is extensive support system for irrigation based farming, leading to so much rush for bore wells as shown in the graph, there is practically no support system for moisture based farming. Supporting policies and systems are required for rainfed areas in terms of research, extension, seeds, price support, transport, fertilisers, storage, machinery, etc.

⇒ Thus, while there is state subsidy of over Rs 15 000 per acre for drip or sprinkler irrigation, if a farmer wants to apply say 5 tractor loads of compost in his farm, which can help retain up to 1250 cubic m of soil moisture, there is no support provision.

⇒ While there is support for chemical fertilisers, there is no support for organic matter build up in the soil.

⇒ Similarly, while per ha investment in irrigation is 1.5 lakh at the minimum; per ha investment in watershed is Rs 6000 at the maximum.

⇒ How can we move towards a policy that has place for conservation paradigm like built up of humus in soil?

How will the surface water sources ensure greater sustainability than groundwater? Why should groundwater recharge measures not be mandatory for all, when it is clear (see mid term appraisal of 10th Plan) that over 80% of rural households depend on groundwater for their drinking water needs? These questions on rural water supply remain unanswered.

Soil organic matter provides the backbone for rainfed agriculture, but there is no support system for that.

⇒ Take the case of System of Rice Intensification, the new method that requires fewer inputs (less seeds, less water, no chemicals) and yet can increase yields. Even if we assume only 25% saving in water for an acre of land that otherwise uses a 5 hp pump about 3 hours a day on average, the saving in power subsidy is to the tune of Rs 1400 per acre (assuming power tariff at Rs 3.95 per unit). Then there is no enthusiasm for SRI?

⇒ We need to move from input centric policies to management centred policies, from component based approach to integrated farming system approach, from extension based systems to knowledge based systems, from chemicals based inputs to labour based inputs, from liberal irrigation to soil moisture based protective irrigation, and so on. The 11th Plan can make a beginning in that direction.

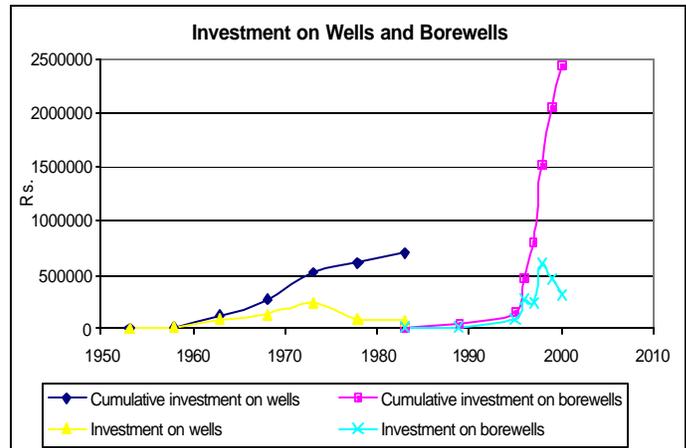
The tenth plan objective of reducing aggregate technical and commercial losses to 15% remains unrealized. Now 11th plan repeats the objective, without taking any new steps to achieve the same. If only wishes were horses....

Clean Water for All The statements in the AP (p 55-6) on this score are instructive: “The 10th Plan target of providing potable drinking water to all villages has clearly not been achieved. Under Bharat Nirman, it is now planned to cover the 55 067 uncovered habitations in 4 years (2005-09). Rural Water Supply is, however, beset with the problem of sustainability, maintenance and water quality. Out of the 14.22 lakh habitations in the country, although more than 95% coverage was achieved prior to Bharat Nirman, about 2.8 lakh habitations have slipped back from either fully covered to partially covered category. Another 2.17 lakh habitations have problems with the quality of water, with about 60,000 habitations facing the serious problems of salinity or arsenic and fluoride contamination. Under Bharat Nirman, it is also proposed to tackle the habitations that have slipped back or have problems with water quality. The 11th Plan must emphasise full and timely realisation of the Bharat Nirman targets.”

The recommendations, however, are not that promising: “Sustainability needs to be addressed by moving away wherever possible from ground water to surface water resources. Where alternate sources do not exist, or are not cost effective, ground water recharge measures will be insisted upon in the vicinity of the project. It will also be necessary to move away from state implemented and managed projects to community owned and managed projects, namely the Swajaldhara Programme. The Swajaldhara had a limited provision in the 10th Plan of 20% of allocation of the Accelerated Rural Water Supply Programme. It will need to be upscaled so that more and more schemes are community managed, reducing the maintenance burden and responsibility of the state. The Twelfth Finance Commission funds for this purpose will need to be fully utilised by the states.”

How will the surface water sources ensure greater sustainability than groundwater? Why should groundwater recharge measures not be mandatory for all, when it is clear (see mid term appraisal of 10th Plan) that over 80% of rural households depend on groundwater for their drinking water needs?

Sanitation AP: “Rural sanitation coverage was only 1% in the 1980s. With the launch of the Central Rural Sanitation Programme in 1986, the coverage improved to 4% in 1988 and then to 22% in 2001. The programme was modified as Total Sanitation Campaign in 1999 changing the earlier supply driven, high subsidy and departmentally executed programme to a low subsidy, demand driven one, with emphasis on hygiene education. Five hundred and forty districts are covered under the programme and the population coverage is expected to increase to about 35% by the end of the 10th Plan... It is expected that with allocation of the required funds in the 11th Plan, the MDG goal can be met by 2010, and full coverage achieved between 2012 and 2015.” The optimism of the last statement is clearly misplaced.



Power Sector AP: “Half the country’s population is today without electricity and, indeed, without a consistent supply of any other form of commercial energy either.” The usual recommendation of huge capacity addition (p 33-34) is business as usual approach without looking at various options: “Utility based generation capacity is expected to rise by less than 30,000 MW in the Tenth Plan but we should plan for an increase by 60,000 MW in the 11th Plan to move to a comfortable situation consistent with a growth rate between 8 and 9% per annum. The 11th Plan must evolve policies that can ensure that generation capacity of this order is created in an efficient, least cost manner while emphasizing exploitation of India’s hydro potential and nuclear capabilities especially in the field of fast breeder reactors.” There is, however, not even an attempt to ensure that the option chosen is least cost one.

However, some of the suggested steps are welcome:

- i. The presently provided guaranteed rate of post tax returns for CPSUs should be lowered to reduce cost of power and augment resources of state power utilities.
- ii. Rehabilitation of thermal stations through R&M to augment generating capacity and improve PLF;
- iii. Rehabilitation of HEPs to yield additional peaking capacity;
- iv. Improving supply side and demand side efficiencies to effectively lower primary energy demand by 5-7%;

"The Accelerated Power Development and Reform Programme initiated in 2001 was expected to bring down Aggregate Technical & Commercial losses to 15% by the end of the Tenth Plan. In fact, the average for all states is closer to 40% (including uncollected bills)... Some states, e.g. Tamil Nadu and more recently Andhra Pradesh, have shown a much better performance than the average... State govts should adopt the goal of bringing down AT&C losses from the current level of around 40% to at least 15% by the end of the 11th Plan."

The AP misses some of the most crucial aspects of the power sector: Assessment of performance of existing generation capacity from all fuel sources, particularly that from hydro power projects, assessment to see how much of the capacity is providing peaking energy, if it can providing more peaking power, what is the potential for managing the peak loads, ensuring time of day metering as a first step towards making the industries and commercial users pay for the peaking power.

Environment "While there may appear to be a trade-off between environmental sustainability and economic growth in the short run, it has to be recognised, that in the longer run environmental sustainability and human well-being are not necessarily in conflict. Neglect of environmental considerations, as for example, in profligate use of water or deforestation can lead to adverse effects very quickly. The threat of climate change also poses real challenge to the well being of future generations which we can ill afford to ignore. Our development strategy has to be sensitive to these growing concerns and should ensure that these threats and trade-offs are appropriately evaluated" (p 6).

However, what is said elsewhere (p 44) in the approach paper shows that the planning commission has shown total bankruptcy in understanding the environmental issues and taking lessons from past experience: "As we put in place a policy of environmental protection, we must also pay attention to the danger of creating a new license permit raj system which will replicate all the ills associated with the old licensing regime. A comprehensive review of environmental clearance procedures is necessary to ensure that the system is transparent and avoids unnecessary delay. Unless this is done, the large increases in investment required for accelerated growth will not fructify." This in the face of shoddy environmental impact assessments, non existent

implementation of environmental management plans or conditions mentioned in environmental clearances and total inaction of the authorities in face of abject and repeated violations. The AP could not have been more divorced from the ground realities.

What the AP says (p 42) on river cleaning also shows that the commission has not attempted any serious analysis of state of the affairs: "The objective of river cleaning is to restore the water quality of all the major rivers to the designated best use which is the 'bathing class' (category B). We are very far from achieving this objective. The National River Conservation Plan needs a critical review of the present strategy of central assistance to states for creation of facilities. Sustainability and operational issues remain unresolved in most cases. Ways of linking treatment of sewage and industrial effluents to the urban and industrial development planning need to be worked out. The goal should be to ensure that by the end of the 11th Plan no untreated sewage or effluent flows into rivers from cities and towns." No steps are suggested how this can be achieved. However, there are some welcome statements: 'Studies on minimum essential flow in the rivers and plans to maintain it must be drawn up.' How this will be achieved is no clear, though.

Rehabilitation While what the AP says on this issue (p 7) is more honest, it makes no credible suggestions for future: "Our practices regarding rehabilitation of those displaced from their land because of development projects are seriously deficient and are responsible for a growing perception of exclusion and marginalisation. The costs of displacement borne by our tribal population have been unduly high, and compensation has been tardy and inadequate, leading to serious unrest in many tribal regions. This discontent is likely to grow exponentially if the benefits from enforced land acquisition are seen accruing to private interests, or even to the state, at the cost of those displaced. To prevent even greater conflict, and threat to peace and development, it is necessary to frame a transparent set of policy rules that address compensation, and make the affected persons beneficiaries of the projects, and to give these rules a legal format in terms of the rights of the displaced. In addition to those displaced by development projects, those displaced by social upheavals should also be properly resettled." The Planning Commission could have suggested a comprehensive and independent review of experience and prepare an action plan to ensure justice to those displaced in the past.

On the whole, except some laudable statements, the AP seems to have been loss of an opportunity to redirect the planning process to make it really decentralised, participatory, people centric & with lessons from the past. There is still an opportunity in including some of these important aspects in the 11th Plan, if not in the AP.

SANDRP

Small Hydro from India & CDM

This is a quick review of status of small hydro projects that have applied for CDM credits.

Small Hydro under validation As on June 10, 2006, following small hydro projects from India have been listed on the CDM site for validation.

Sr No	Project	Capacity, MW	Comments deadline
1	Bhilangana (Uttaranchal)	22.5	170606
2	Upper Awa (HP)	5	220606
3	Marhi (Kulu, HP)	5	230606
4	Bundled upper Khauli & Krinidhar (HP)	10	020706
5	Baneer Khad & Iku Khad (HP)	2 X 5	020706
6	Janapadu (AP)	1	080706
7	Kallam Spinning Mills	2.4	080706

Registered Small Hydro As on June 10, 2006, following small hydro projects from India has been registered by the CDM executive board.

Sr No	Project	Reduction claimed	Registration Date
1	5 MW Taraila SHP (Chamba, HP) Ginni Global Ltd	25190	040606
2	18 MW Kemphole International Power Corp Ltd	35775	250506
3	Vajra, Chaskaman SHP of Vindhyachal HEP ltd, Maharashtra	19132	150506
4	Babanpur, Killa & Sahoke SHP	21292	300406
5	Dolowal, Salar & Bhanubhura SHP	21026	300406
6	Lohgarh, Chakbhai, Sidhana SHP	25347	300406
7	3 MW Aleo Manali, HP	13614	140406
8	6 MW Somanamaradi grid connected SHP, Karnataka	16977	110206
9	20 MW Kabini SHP, SKPCL	44968	251205
10	10.25 MW Chunchi Daddi SHP, Karnataka	25490	161205
11	4.5 MW Manjhi SHP, HP	13168	061205
12	5 MW Dehar SHP, HP	16374	180505

Request for Registration As on June 10, 2006, only one project has been listed under request for registration on the CDM website: 2 X 5 MW Radhanagari SHP for which parties listed include UK and Northern Ireland, besides India.

Request for Review Here surprisingly, one small hydro project from India has been listed. The listed projects is a 3X3 MW Manal, Chandani and Timbi HEP of HCPL in Sirmour district in Himachal Pradesh and the reason given by four requesters is all same: "The use of default deficiencies for coal & gas fired power plants is not acceptable". The review request is clearly on very technical grounds.

Bhilangana HEP:

Another example of fictitious claims in Project Document

The 22.5 MW BHPP under implementation in Uttaranchal has been facing protests from the people in the project area for over two years. The project was put up for validation on CDM website, with June 17, being the last date for submission of comments. A number of organisations have submitted comments on the project, some of the important points included the following.

⇒ The project developer (Swasti Power Engineering Ltd) has not done any satisfactory consultation with the people in the affected villages. The local people have not been given any of the project documents like the detailed project report, have not been given the full environment impact assessment or environment management plan in the language that they can understand. Nor have the people been told in full about the adverse impacts of the project.

⇒ The PDD repeatedly makes the most shockingly misleading statement "there is no negative impact on the environment due to the project". A project of this nature always causes significant negative impacts on the environment, including due to diversion of agricultural land, forest land, diversion of the Bhilangana (thus almost drying up of the stream even if we take into consideration the claim that project would release 0.25 cumecs discharge), blasting for the tunnels and diversion structure, addition of large number of outsiders to the area and the impacts thereof, the disposal of the muck created in the project and so on.

⇒ Power generation data from SHPs in Uttaranchal shows that the Plant load factor of such projects is 20.7% generally. How are the proponents claiming that the BHPP would have a PLF of 66.26%?

⇒ The conclusion that project is additional is incorrect. The alternatives listed does not include some of the most important viable alternatives: optimize the output from existing plants, reduce T&D losses, increase end use efficiencies, reduce theft of power, other generation options including smaller hydro, biomass, solar, etc. The project was allotted to the developer by the govt before 2001, i.e. before the CDM process started.

⇒ The claim "The people affected by the Tehri dam have been given heavy monetary compensation" leading to "increased expectations and greed" is utterly wrong.

Complaints against Taraila SHP

The residents of Churah valley in Chamba district in Himachal Pradesh are up in arms against the developer of the 5 MW Taraila SHP, registered with the CDM board, ironically, just two days after the media reports about the protests. This shows that the CDM board has no proper channel to find out what is going on ground even as they take decision to register the project. The people have written to the Union Minister of Environment, opposing the project. (The Tribune 020606)

Govt of India's Fundamentalist push for large storage projects EXPOSED ONCE AGAIN

In a shocking development, the Union govt plans to impose large water storage projects on state govts even when state govts are against such projects, bypassing the constitutional provisions & democratic norms. According to official minutes from the Union Ministry of Power, in a specially called high level meeting on Aug 1, 2005 between heads of Union Ministries of Power, Water Resources, Central Water Commission, Central Electricity Authority and heads of central public sector undertakings like the NHPC, NTPC, NEEPCO, SJVNL & THDC, it was decided that steps would be taken so that govt of India can impose its decisions on building large storage dams on state govts, bypassing the constitutional provisions and democratic norms.

In a shocking development, the Union govt plans to impose large water storage projects on state govts even when state govts are against such projects, bypassing the constitutional provisions & democratic norms.

Right in the beginning of the meeting, the secretary (Power) criticised the Arunachal Pradesh govt's decision to allow only run of the river type power projects in that state.

Looking for ways to force state govts In fact, in the meeting, the Union Power secretary asked the Union Water Resources and Central Water Commission, if "there was any legal instrumental available with Govt of India to oblige the state govts to agree to the storage schemes". This fundamentalist attitude is not only anti people, anti environment, anti economy, but also is against the federal constitutional structure of India. The fundamentalist attitude of the union govt has been evident in history of dam building over the last sixty years and it is clear that there is no impact on that mindset of the disastrous experience of large dams in India.

The minutes records the response to the question: "CMD, NHPC and Sr. Joint Commissioner (Eastern Region), Ministry of Water Resources informed that there were some provisions in the Brahmaputra Board Act by virtue of which the hydro electric schemes in the Brahmaputra basin cannot be implemented unless the same were cleared by the Board. Some guidelines have also been issued in the National Water Policy".

The Union Power Secretary was not happy with this. So the minutes record: "Secretary (Power) stated that there was an urgent need to frame laws / policy instrument" to ensure that large storage projects can be taken up. "Secretary (Power) requested Secretary, Ministry of Water Resources to bring out a policy paper in this regard at the earliest so that the DPRs of storage

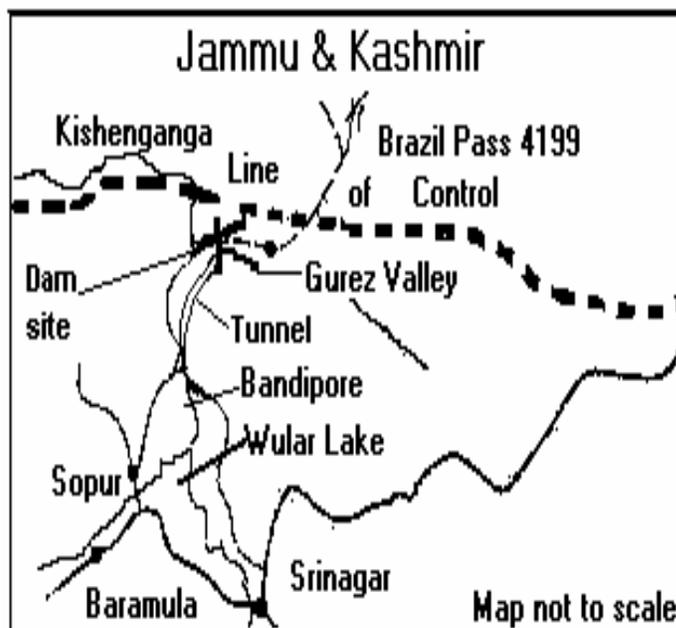
schemes could be prepared and these schemes could be implemented without any hindrance".

Kishanganga HEP The mindset of the govt got exposed from the account given in the minutes about how the change of status of the Kishanganga HEP happened and impacts there of.

Following successful protests by the affected people during public hearing of the Kishanganga HEP Gurez Valley in Jammu & Kashmir, inhabited by shin tribes, the govt and the NHPC had to

change the Kisanganga HEP from a storage project to a largely run of the river project, with following changes.

Parameter	Earlier proposal	New Proposal
Ht of the dam, m	77	37
Gross storage capacity, MCM	220	18.35
Live storage capacity, MCM	173.5	10.95
Length of the reservoir, km	11.2	4.5
Submergence area, sq km	7.65	2.00



Kishenganga river diversion to Wular Lake

Savings In stead of seven villages (8523 population) earlier, one village (population 821) will face submergence and the cost of the project would be reduced by Rs 700 crores.

New Tenders On July 11, '06 (The Tribune) NHPC invited Prequalification bids under International Competitive bidding for turnkey execution of the project, canceling the earlier notice dated 290905.

No change in Power Generation

Such big changes in the project, CMD, NHPC informed a govt of India meeting that, have been possible "without much change in energy generation". The question arises, if that was the situation, why does the union govt hanker for greater storage projects which necessarily have very large submergence of lands and displacement of people.

The Bursar threat As if to compensate for the "loss" in Kishanganga, Union Water Resources Secretary and Union Power Secretary asked NHPC, which is preparing the Detailed Project Report of the Bursar HEP in J&K, to ensure that "full storage capacity admissible under the treaty should be built". These words from the official minutes of the meeting signify the mindset of the Union Water Resources and Power Ministry that they see big storage projects as good in themselves, irrespective of whether they serve any useful purpose or not, whether they are optimum solutions or not, whether it is possible to achieve the objective with projects with lower social and environmental impacts or not.

Khab Plans One of the projects that the Govt of India would have in mind while pushing this new policy is Khab dam on Sutlej River in Kinnaur district in Himachal Pradesh. Here, in a decision that is reversal of what happened at Kishenganga, a run of the river project is sought to be converted to a storage based large dam. A strong movement of local people is trying to thwart this attempt, see the reports below.

Thus one of the decisions of the meeting was: "Ministry of Water Resources/ Central Water Commission will come out with a suitable Policy Instrument to ensure that the sites identified for storage schemes are not converted into ROR schemes by the States and the decision of the Central Govt to develop the sites as storage schemes should be binding on all the States."

The Decision Thus one of the decisions of the meeting was: "Ministry of Water Resources/ Central Water Commission will come out with a suitable Policy Instrument to ensure that the sites identified for storage schemes are not converted into ROR schemes by the States and the decision of

the Central Govt to develop the sites as storage schemes should be binding on all the States."

Needless to conclude, this will be a very dangerous instrument if it materializes. At the moment any such instrument does not seem to enjoy legal backing in view of water being a state subject in India's constitution. However, we need to be very vigilant. If the decisions taken at the confidential meeting were to become a policy than, the implications would be particularly catastrophic for the North Eastern states where Arunachal Pradesh govt has taken a policy decision of not taking up any storage based hydropower projects.

SANDRP (Another version published by indiatgether.org)

Run of the River and Storage Projects

In storage based hydropower projects, the dam height is such that it creates large water storage capacity behind the dam. The height from which water falls from behind the dam to the riverbed in the downstream portion is used to generate power.

As against that, the ROR projects are not supposed to have big storages for generating hydropower. The diversion dams in ROR projects are thus of lower height and create storage equivalent to, typically, requirement for generating power for a few hours. The water diverted from the dam in such projects flows through several km long head race tunnel and the fall in gradient through this length is used for running the power turbines. The tunnel length can vary from a couple of km to over 40 kms in some cases. The water re-enters the rivers after generating power at the end of such tunnels.

However, it should be noted that there is no precise limit for storage for a project to be defined as run of the river project. The definition has been stretched many times to include projects with much larger submergence area (e.g. Maheshwar HEP on Narmada River in Madhya Pradesh).

There is now increasing trend for building ROR projects in place of storage projects, particularly in hilly regions, where big gradient becomes available in short distance. The difficulty in getting public and govt acceptance for large submergence areas for storage projects is one of the causes for this trend. The storage projects typically have multiple objectives, as against ROR projects basically being only for hydropower generation.

Vidarbha Crisis: Farmer Suicides

Region at a glance There is no one universal definition of Vidarbha region. In political circles, the region is supposed to include seven districts: Akola, Amravati, Buldana, Nagpur, Washim, Wardha and Yavatmal. However, Vidarbha Irrigation Dev Corp includes only six of these districts, Nagpur excluded from this list. However, there are other definitions that include some other districts like Chandrapur and Gadchiroli in Vidarbha. Following figures are for five districts of Amravati circle of VIDC: Akola, Amravati, Buldana, Washim and Yavatmal.

(Lakh Ha)

Geographical Area	46.05
Cultivable area	32.05
Final Irrigation Potential	10.327
Irrigation Potential Created by state govt, by June 2006	4.267
Irrigation Potential created by VIDC	1.423 (+ 0.172 Wardha)
Drought Prone area	0.247 (Buldana)
Tribal Area	4.012 (Amravati & 4.21 (Yavatmal)

Vidarbha Irrigation Development Corporation VIDC (www.vidcngp.com) was set up in 1997 to expedite work on irrigation project by raising funds through bonds. According to VIDC, Vidarbha has 97.43 lakh ha of land area. Total irrigation potential is 28.95 lakh ha, of which 11.78 lakh ha has been created by June '06.

Irrigation Potential The situation with regard to irrigation potential development in Amravati region is given below:

(ha)

	Ultimate Irrigation Potential	Potential Created by June 2005	Balance
Major	525276	121345	403931
Medium	43316	25372	17944
Minor	30582	26023	4599
Total	599174	172740	462434

Why focus on irrigation? The focus on PM's package on irrigation is questionable when Vidarbha remains a largely rainfed area. As per Vijay Jawandia of Shetkari Sangathan, even if all the projects were completed, 85% of the farmers in the region will still have no access to irrigation. 93% of the land is currently non irrigated. Jawandia also suggested that in stead of horticulture and drip irrigation, the focus should have been on protective irrigation for rainfed crops.

Monopoly Cotton Procurement In answer to a question in Rajyasabha on Feb 17, '06, Union Agriculture Minister said, "As regards cotton, it is true that there is a scheme in Vidarbha and Maharashtra for monopoly procurement of cotton. There was a demand

from certain organisations that monopoly should be removed and others should also be allowed to procure or purchase cotton. Government of Maharashtra have recently amended their scheme; they have removed monopoly." This is cited by many as the main reason for the increasing spate of farmer suicides in Vidarbha in recent years (see table below). The figures could be higher than those given in the above table.

Farmer suicides in Vidarbha

Dist	'01	'02	'03	'04	'05	'06*	Total
Akola	6	7	21	46	43	51	174
Amaravati	11	21	38	99	100	92	361
Washim	7	6	5	43	26	53	140
Buldana	5	9	10	80	66	83	253
Yavatmal	17	38	52	142	167	118	534
Wardha	2	24	14	29	24	35	128
Nagpur	0	5	3	20	15	31	74
TOTAL	48	110	143	459	441	463	1664

*: Till June 28, '06

It is clear from the above table that incidents of farmer suicides in Vidarbha districts have been high for at least last three years. The question arises is why was the state and the central govts took so long to realize the gravity of the situation? Journalists like P Sainath have been writing about these suicides for several years now.

The World Bank came out with a report titled *Maharashtra: Reorienting Government to Facilitate Growth and Eradicate Poverty* in 2002. The Govt of Maharashtra has been obeying the World Bank diktats. Below are some quotes from the World Bank report.

- "It is difficult to think of any valid economic reason for the state to intervene in the cotton market in an open-ended fashion. If anything, it distorts the pattern of crop production in favor of the protected crop" (p.90).
- "It is the view of this report that the Cotton Monopoly scheme has outlived its original objectives" (p.90).
- "The monopoly procurement scheme be discontinued from 2002 and the Maharashtra State Cooperative Cotton Marketing Federation be disbanded" (p.90).
- Instead of having government involvement in purchase, processing and storage of cotton, steps could be taken to increase adoption of high yielding seed varieties (Read Monsanto seeds) produced specifically for dry-land areas (p.90).

While the media is wide coverage to PM's visit to Vidarbha in June '06, none of them are going into the role the World Bank played in this whole situation.

PC advice against Bt Cotton in Rainfed areas The Planning Commission wants centre to send an advisory against use of Bt Cotton in rainfed areas like the Vidarbha. The PM's fact finding team has suggested free seeds to the 15 lakh farmers of the region and Planning

Commission says the seeds should be appropriately selected so that the farmers do not fall in Bt Cotton trap. The question arises as to what was the Planning Commission doing for the last five years? The Commission all along knew that Vidarbha is predominantly rainfed area and that the Bt Cotton seeds were not appropriate for the area. Why did the commission than not speak out earlier on this issue?

Illegal money lending Private money lenders are the (mostly illegal) prime agents lending money to farmers and then demanding huge interest rates, upto to 50% and using various methods to recover the dues. Such money lending is illegal. One of the biggest money lender is a congress MLA. In the Rajyasabha debate on Feb 17, '06, the Union minister said that the Maharashtra govt has declared that farmers need not return the money taken from illegal money traders, but this increased the problems from farmers.

High Rainfall in 2005 Another reason being cited for suicides this year is that due to floods in Vidarbha last year, the crops have not been good this year.

June-Oct '05 rainfall in Vidarbha districts (mm)

District	Normal Rainfall	June-Oct '05 Rainfall	June-Oct '04 Rainfall
Buldana	708.8	5821	596.7
Akola	718.3	727.1	492.1
Washim	828.9	940.2	544
Amravati	851.4	866.3	607.9
Yavatmal	963.8	1022	454.8
Wardha	972.9	1043.9	694.1
Nagpur	1050.5	1210.1	664.9

Source: Maharashtra Govt website

It is clear from the above table that indeed in 2005 monsoon, Vidarbha districts had above normal rainfall, except for Buldana. Secondly, it is clear that the rainfall in monsoon 2005 was higher than in monsoon 2004 for all districts except Buldana. Thirdly, it is also clear that normal rainfall in these districts is above 800 mm except for Buldana and Akola. In such a situation, water availability should not have been a constraint in Vidarbha after the monsoon 2005.

High Storage in Water in Vidarbha in June '06 It is strange to find that the water stored in Vidarbha dams as on June 19, '06 (the latest date for which the information is available on Maharashtra govt website) was very high at 747 MCM in Nagpur region and 510 MCM in Amarawati region. These figures are very high compared to the position on the same date in 2005 (Nagpur: 129 MCM and Amarawati 183 MCM). This is partly due to the relatively high rainfall in these districts in 2005.

Case in High Court In a petition filed in Mumbai High Court by the Vidarbha Jan Andolan Samiti on the issue

of farmers suicides in Vidarbha, 12 senior officials of the state govt, including the Chief Secretary tendered unconditional apology after the court order had directed the officials to pay Rs 1000 each for failure to file affidavits in the court.

PM's package: a disappointment The economic package for the region announced by the PM during his visit to the area during June 30-July 1 was a disappointment after all the drama of the visit. Kishore Tiwari of the Vidarbha Jan Andolan Samiti said, "This package will, in fact, increase the rate of suicides". The editorial in *The Times of India* (030706) agreed, "the move may ultimately do more them harm than good." Besides waiver of outstanding interests on loans taken by the farmers and rescheduling of unpaid loans, the package included provision of Rs 2177 crores for the completion of 524 major, medium and minor irrigation projects in six districts (those listed in table above, except Nagpur) over the next three years to bring additional 1.59 lakh ha under irrigation. About better remunerative prices, the PM said it needed to be discussed properly. The package also included Rs 240 crores for watershed development and it proposed to expand drip and sprinkler irrigation to cover 50 000 ha. He claimed he was aware of the need to move away from the focus on cash crops. The Union govt plans to announce similar packages for Andhra Pradesh, Karnataka and Kerala districts.

Big irrigation projects The package will help expedite work on Bembla project in Yavatmal, Lower Wardha in Wardha and Khadakpurna in Buldana, it is hoped. These projects account for 45% of funds under the irrigation component of the package.

⇒ On July 11, '06 tender notices were issued (The Hindustan Times) for construction of Dehni LIS with estimated cost of Rs 87.91 crores by the Bembla Project Division, Yavatmal Irrigation Circle of VIDC.

Minor irrigation The 442 minor projects, to be handled by the State's Water Conservation Department (with command area of 101 to 250 ha, projects less than 100 ha are with the Zilla Parishad and those above 251 ha are with the state irrigation dept) would cost Rs 90 crores and account of 14 000 ha irrigation.

Backlog of development Vidarbha's backlog calculated by the Backlog Commission is investments of Rs 14 434.64 crore. Vidarbha was given special provision in the Constitution to ensure that that it got its due share of funds. The Maharashtra CM, trying to wash off the guilt of neglect of Vidarbha, announced a Rs 10 000 irrigation package for the region, saying this will include market borrowings besides the Rs 2177 crores from PM's package announced a day earlier. (The Times of India, Indian Express 300606, 020706, 030706, The Hindu 020706, 090706 The Financial Express 030706)

SSP Height to be restricted to 119 m this year

In vindication of the stand taken by NBA, the work on the Sardar Sarovar Dam had to be stopped at 119 m as against the earlier permission given to take the height to 121.92 m. Gujarat govt assured the Supreme Court on July 10 that it will stop work on the dam once all blocks reaches 119 m. As per the status given on the SSNNL website, 11 of the 21 blocks now being raised (the rest have reached full height) have reached 119 m by July 5 and 10 blocks were at 117.8 m. Gujarat govt counsel argued in the court that for safety of the dam Gujarat should be allowed to take all the blocks to 119 m, after which it will stop work. The PM also exposed himself when saying that Madhya Pradesh should accelerate the R&R work so that all sites are ready before dam work resumes after the monsoon.

Earlier, in spite of its clear attempts to give a report that pleases the govt, it became clear from the Shunglu committee report (http://wrmin.nic.in/SSP_RR_FinalReport.pdf) that rehabilitation of the people affected in MP is far from complete or satisfactory, with thousands of families remaining un-resettled. The PM once again showed how weak and anti people he and his govt are by recommending to the SC that work on the dam must be continued. This was also in contradiction with the report given by a group of ministers from his own govt. The Court should have asked for action to be taken against those responsible for pushing the dam construction in violation of the Tribunal award and earlier SC orders. The next date of hearing is in Sept '06 after all parties respond.

However, it is moot point if the work had been continued if the monsoon had not started and work had to stop anyway due to the monsoon.

Shunglu Committee stands discredited The Shunglu committee set by the Govt of India to go into the issue of rehabilitation of the people affected by increasing the height of the dam to 121.92 m has submitted its report to the Prime Minister, to be submitted to the Supreme Court. The report has not been made public in the best tradition of non transparency. However, the committee has discredited itself by not consulting the NBA and other concerned right from the beginning of the work of the committee, as it should have, by not going to the affected villages and R&R sites, by not looking at R&R in the legal context of Tribunal Award and Supreme Court orders and in fact going beyond its mandate. The people were asked to respond to Madhya Pradesh govt's Action Taken report, in stead of trying to find out the reality of displacement and rehabilitation. Similarly, the NSSO has also discredited itself by allowing state govt officials to accompany the survey team, by having a inadequate questionnaire and refusing to understand the ground reality beyond the questionnaire and in some instances

allowing biased Gujarat officials to be part of the survey team. The system has once again played out against the interests of the project affected people.

Serious implications of recommendations Shunglu Committee admits that the number of major sons is not yet final and asks NVDA to fix this. Considering the fact that major sons are in thousands, even a partial underestimation would be serious and it is blatant violation of law when OSG merely recommends, "NVDA should confirm to NCA that R&R of major sons should be completed, even where it was rejected before 2005, due to different interpretation."

Serious lapses The most glaring example is of Annexures III and IV giving the number of households and population in 1991 and 2001 as also number of PAFs for certain villages, claiming "a demographic change" which is more or less interpreted as cheating by the villagers by developing property for the purpose of claiming compensation. While there are such cases resulting out of official's corruption in lakhs of Rupees (as pointed out by the Gramsabha of village Piplood in Badwani District - 34 fake names in the record and Rs 70 lakh worth of cash compensation misappropriated!), in presenting this data, the Shunglu Committee and NSSO have been clearly misled and have misled others. To exemplify, the tables show Pichchodi (decades old village with over 800 families, all PAFs), Anwli (also decades old village with about 595 families, all PAFs), and others as having no population and no household in 1991 and suddenly human habitation developed by 2001!

In reality, as the OSG (Over Sight Group, another name for Shunglu Committee) itself accepts, the striking fact is the land bank of GOMP has land which is neither irrigable nor cultivable. And yet, OSG goes on to assume that cash compensation is not in violation of the policy, in complete violation of the legal stipulations.

The OSG notes that when there are about 50 R&R sites (out of 86) are not ready, and yet concludes that the PAFs have not moved because submergence is yet to occur. In a way, it approves drowning of houses and fields when families have no place to go. It seems that the exercise of the OSG and the PM's decision to continue the construction based on it is to allow the dam to go ahead & let the 1.5 lakh people submerge.

SSP R&R: corruption in MP

⇒ **Affected people given land in submergence area** In a series of shocking incidents, it has transpired that people affected by Sardar Sarovar Dam are being offered land in villages being submerged by other dams in the region. For example people from SSP affected Jangarwa village in Badwani district are were given land in Sonud village in Jhiranya tehsil in Khargone district.

But Sonud village is affected by Veda dam on one of the tributaries of Narmada river and the land in question has already been acquired by the govt for that purpose. In another shocking incident, 370 affected families from 14 SSP affected villages in Manavar tehsil are sought to be resettled on just 7 ha in Borgaon village in Pandhana tehsil. How can 370 families be resettled on 7 ha? Such questions do not bother the govt, it seems.

SSP: Rajasthan unhappy over delay Govt claims for increasing dam height prove false

The claims made by the Gujarat, Rajasthan and Union govt for increasing the height of the dam to 121.92 m, that this will help take the Narmada water to Rajasthan are proving to be complete falsehoods. The Main canal to take the water to Rajasthan is far from complete and is unlikely to be completed before mid 2007 at the earliest. The siphons to cross Saraswati, Khari and Banas rivers in N Gujarat, between 357 - 458 km are yet to be completed. The work could in fact be completed only in 2008 in view of intervening monsoons. It would take further 2-4 years before water can reach Jalore city.

Unhappy over the delay in completion of the Narmada Main canal from 357 km to 458 km for the last two years, a high level team of senior Rajasthan govt officials will visit Gujarat in the first week of July to see the progress

of work. Rajasthan claims it has done the required arrangements to receive and transport the Narmada water in Jalore and Barmer districts once it reaches at the Silu village on border in Rajasthan. Rajasthan has created a new post of Chief Engineer (Narmada Project), to be posted at Sanchore in Jalore district.

The officials responsible for misleading the country and the court should be held accountable, but alas, there is no system in India for this. Gujarat has now assured Rajasthan to give 500 cusecs water by Oct 31, '06.

Gujarat ousts tribals for tourism Gujarat govt sent a large contingent of police force to forcibly remove tribals to hand over the land to Mumbai based BSEL Infrastructure Ltd to create tourism facilities at the Dam site. The true face of the project and Gujarat govt stands exposed once again. The land is being taken from the tribals saying they have been compensated, when tribals have been saying that they were only given compensation for the standing crops. The people have strongly resisted and Gujarat PUCL has condemned the govt. However, many from Gujarat who claim they are working for rehabilitation remained silent in face of what one of the protester says "plain cheating" of the tribals by the govt. (*Dainik Bhaskar* 230606, 270606, 280606, 030706, 140706 *The Hindu* 270606, 280606, 050706, 080706, 110706 *The Economic Times* 070706, *The Indian Express* 110706, NBA PR 110706)

Nimad villagers haunted by fear of the known

Kunal Chattopadhyay

"You have heard what they (the govt) say. You have heard what we say. Please see now for yourself and report the truth" — said a woman of Chikhalda village, near Badwani, Madhya Pradesh, where I was studying the effects of the Sardar Sarovar Project. Twice in the living memory, in 1970 and 1994, flooding of substantial parts of the village had taken place, with four feet water in the temple where a meeting was now taking place, even though there had been no Sardar Sarovar Dam then. Yet, the govt is assuring villagers that flooding is likely to be a once in a century problem. Moreover, many people have simply not been registered. The woman with whom I was talking said this was true of her, and asked, "Is this because I am active in the NBA? Do activists not have rights?" Others came forward, to say that their houses had been adjudged "not affected", though this would mean at best that those houses would be small islands surrounded by water.

Supporters of the dam have repeatedly stressed the scientific and well-planned character of the project and condemned all opposition as being based on anti-development attitudes. The recently set up Shunglu committee is one evidence of how the scientific approach works. Faced with criticisms of MP govt's Action Taken Reports, the Shunglu Committee is simply checking the statements of the ATRs, without 'critiquing' their methodology or looking at the complaints coming from ground levels. So at one level it is indeed possible to argue that something like the Shunglu committee is unnecessary. But not because all grievances redress mechanisms are in place.

Interviews with Gujarat adivasis, "rehabilitated" long back, showed several consistent complaints. After being promised five acres, many found the actual amount to be smaller, and lost a second time when canals took away further land. Secondly, the original 19 villages were resettled in nearly 180 settlements, so they lost the community cohesion. As one speaker at the Chikhlada meeting asked — "when they say we will be rehabilitated in four villages, will they give us four temples and four mosques? Will our community life remain intact?" The Gujarati adivasi experience clearly says no to that. Third, the common and forest rights were lost after "rehabilitation". So the net effect was a loss in cattle and their animals, and a drop in income. One and all, these Gujarati villagers, most of whom had nothing to do with the NBA in early years, and some of whom admitted to having been taken along to confront NBA supporters in Ferkuwan, also said that they had had no option but to move, under duress. When I said that after all, local NGOs had done much to resettle them, one person shouted: "bring before us those who brought us here, and let them reply to our questions face to face." (The author is professor of History at Jadavpur University and was recently in Gujarat in connection with a research project on conflicts over the Sardar Sarovar Dam. A version of this was published in *The Times of India* (Ahmedabad, on July 2, '06)

NARMADA VALLEY**Protests by people affected by six dams in MP**

Around 5000 people of around 400 villages affected by 6 large dams being built in the Narmada valley – Indira Sagar, Omkareshwar, Maheshwar, Man, Veda and Bargi dams marched in Bhopal on June 29, '06 to protest against the destruction of the Narmada valley in the name of development, and their dispossession and forced pauperization. The oustees warned the Govt policy of arbitrary and illegal exclusion of several thousand families affected at Maximum Water Level and Back-water level of the Indira Sagar and Omkareshwar dams from the ambit of submergence and rehabilitation would bring dangerous implications. In the last one year, the State Govt had surveyed and numbered thousands of houses in the ISP and Omkareshwar areas at Maximum Water Level, over which a large chunk of about 5000-6000 houses or more were finally excluded from the process of land acquisition and rehabilitation. Surveys at Back-water level were yet to even begin. They stated that their prayer to the High Court not to allow impoundment above 245 m this year, and full closure of dam gates only after all oustees affected at FRL and BWL had been rehabilitated as per the requirements of the Rehabilitation Policy, Narmada Award and the Supreme Court orders, was under consideration. It may be noted that the Supreme Court had stipulated that both oustees affected at FRL and those affected at BWL would have to be treated at par and rehabilitated and resettled six months prior to submergence.

The oustees demanded a public audit of the actual benefits of the large dams already built in the Narmada valley. They said that even dams like Bargi built 20 years ago was yet to deliver the claimed irrigation benefits. Similarly even though the Indira Sagar dam was constructed at a reckless pace, the electricity situation in the state has not improved substantially. Yet once again, the State Govt was hastening the pace of construction of the Maheshwar and Omkareshwar dams putting rehabilitation aspects into abeyance. The oustees said that even a miniscule saving in the huge T&D losses in the state would provide more electricity than all the Narmada dams put together.

In New Harsud today, the people were facing large scale un-employment and rampant hunger and were forced to migrate in search of employment, and women were now so desperate they were asserting that they sell themselves if required rather than die of hunger. Two oustees – Santosh Paliwal and Amrabai have committed suicide in the last three months because of exclusion and delayed compensation.

The oustees of the Man and Upper Beda dams in the Districts of Dhar and Khargone stated that although they

were almost wholly tribal areas and are protected by the Indian Constitution, they have been denied even the basic land provisions in the Rehabilitation Policy and forced to depart with compensation. Their demand is that the Govt must provide them with a minimum of 2 ha of irrigated and cultivable lands.

The NBA demands that the State Govt institute a CBI enquiry into the suicides and the large scale exclusions of several thousand submergence families from the ambit of rehabilitation and acquisition in the Omkareshwar and Indira Sagar Projects, and rectifies the situation immediately to prevent any more suicides. The NBA also asks that the State Govt immediately start acquisition of *tapu* and unviable villages, and villages where the majority of the lands are in submergence as well as rehabilitate the oustees as per Rehabilitation policy and Plan. The NBA also demands that the Harsud residents should be distributed 5 acres of reservoir draw down land on a temporary patta basis and given electricity facilities to cultivate the same.

Regarding the Bargi Project, the NBA demands that the earlier order of permitting the water level to come down to 418 m by Dec 15 every year, so as to allow timely draw-down cultivation, that had been cancelled in the interim be re-issued so that the oustees who are making a living by cultivating the draw-down lands may continue to do so.

Maheshwar: MEF asks suspension of work
Responding to representations by NBA, the Union Ministry of Environment and Forests have asked the Madhya Pradesh govt to get the ongoing work on Maheshwar HEP stopped, till a comprehensive plan for resettlement and rehabilitation of the affected people has been achieved. The plan will have to be approved by a monitoring committee from the Central Water Commission, Ministry of Water Resources and MEF. In a rare instance of use of Section 5 of Environment Protection Act 1986, the letter from the Ministry of June 9, '06 said that the private company Shri Maheshwar Hydel Power Co Ltd of S Kumars had violated the conditions of the environment clearance letter from MEF. NBA has demanded that the state govt should scrap the project as it was likely to produce very little and very expensive power. Meanwhile on June 28, '06 the Madhya Pradesh govt extended the deadline for achieving financial closure by another six months to Sept 30, '06.

Indira Sagar Power Minister dedicated the 1000 MW project on Narmada River to the Nation on June 3, '06. (The Hindu 040606, 130606, NBA PR, Business Standard 290606)

Polavaram: Violations in Environment Clearance, Public Hearing processes

Violations in Public Hearing process The Andhra Pradesh govt, in an affidavit dated March 16, '06 before the National Environment Appellate Authority, has accepted a number of violations during the public hearing process.

History of the project According to the AP govt affidavit, the sequence of some important events was:

⇒ **4.8.'78, 11.7.'79, 2.4.80** Interstate agreements concluded.

⇒ **3.4.'80** Agreements placed before the Godavari Water Dispute Tribunal.

⇒ **1985** Detailed Project Report completed

⇒ **1996** R&R reports prepared through Centre for Evaluation of Socio Economic Studies.

⇒ **2002** EIA-EMP prepared by Environment Protection Training & Research Institute based on data of 1996.

⇒ **16.9.'05** EIA-EMP updated by M/s AFC Ltd, Hyderabad during 2005 submitted to MEF.

Sequence of dates in the EC process The AP govt affidavit, when read closely, gives following sequence of dates of important events that lead to the environmental clearance to the project.

⇒ **23.3.'05** Application submitted to Ministry of Environment and Forests for site clearance.

⇒ **4-5.9.'05** The Expert Committee constituted by the MEF visited the project site.

⇒ **10.9.'05** APPCB notified for public hearing to be held on 10.10.'05 in 5 districts Vizag, E Godavari, W Godavari, Khammam and Krishna.

⇒ **16.9.'05** Application for site clearance filed in a revised format with requisite information.

⇒ **16.9.'05** EIA submitted to MEF

⇒ **16.9.'05** Chief Engineer, Indira Sagar Project, wrote to Member Secretary, Orissa Pollution Control Board, saying that he is attaching EIA, EMP R&R reports and executive summary, and "request to kindly initiate action to conduct public hearing before 10th Oct, '05. This was strange letter as Chief Engineer of the project has no business of requesting the Pollution control board of another state to hold a public hearing in that state. Secondly, a public hearing notice is supposed to be issued in local newspapers at least a month in advance, where as here the Chief Engineers was asking that public hearing be held in 24 days. Thirdly, the project executive summary is supposed to be made available in local language that is Oriya in this case, which is not available. Moreover, the letter did list the ten villages, but said they were in Koraput district (when in reality the villages were of Malkangiri district), which means that the Chief Engineer did not even know which district was to be affected. The Chief Engineer shot off another letter to Chhattisgarh, this time addressed to Project Director of the Pollution control Board in Jagadapur, which was again most inappropriate thing to do on the part of Chief Engineer. This letter also talked about submergence of

villages in Jagadapur district (& not Dantewada) in Chhattisgarh, which showed that the Chief Engineer did not know which district in Chhattisgarh was getting affected.

⇒ **17.9.'05** MEF asks clarifications on EIA

⇒ **19.9.'05** MEF gives site clearance.

⇒ **29.9.'05** Chief Engineer, Indira Sagar Project writes to District Collector, Malkangiri, Orissa, asking him to ensure that people from ten affected villages in Malkangiri participate in the public hearing on Oct 10 at Bhadrachalam, Khammam district, AP. This was in contravention of the EIA Notification. The letter said that executive summary of the project is attached, not the EIA, EMP nor the executive summary in local language. This was another gross violation. Note that the letter was sent just 11 days before the public hearing, which again was in violation, as the notice should have gone more than a month before the scheduled date and there should be a notice in the Orissa newspaper about the public hearing in Orissa, not in AP as the letter said. A letter on the same lines was also sent to district collector, Dantewada, Chhattisgarh.

⇒ **10.10.'05** Public Hearing is held at five places: E Godavari, W Godavari, Khammam, Visakhapatnam and Krishna. At most places there was strong opposition to the project and violations in the public hearing processes.

⇒ **18.10.'05** APPCB grants consent letter to establish.

⇒ **19.10.'05** A power point presentation given in the Expert Committee meeting held at MEF.

⇒ **20.10.'05** Replies to the queries posed by the Experts submitted to MEF.

⇒ **25.10.'05** MEF gives Environmental clearance.

⇒ **12.12.'05** Application for forest clearance.

Violations A number of violations are clear from the above process. Firstly, no public hearings have taken place in the affected areas in Orissa and Chhattisgarh, so the project could not have been even considered for clearance. Even as the public hearings were notified in Andhra Pradesh, the project did not even have site clearance. Nor was the EIA of the project submitted to the MEF. How could the public hearing be notified without availability of final and complete EIA? The project does not even apply for the forest or wildlife clearance till December 2005, how could the project have been given environmental clearance? When the EIA of the project was based on such outdated data of 1996, how could the EIA be accepted, that too updated on desk based in a few weeks? If the local people protested against the public hearing and EIA, in such large numbers, how could the project be considered for environmental clearance? These are of course some of the obvious violations, there are many others, which all cannot be listed here.

Impact on Papikonda Wild Life Sanctuary The AP govt affidavit says that 3223 ha forest land spread over Kakinada, Eluru, Vijaywada, Visakhapatnam, Bhadrachalam and Polvancha forest divisions would be submerged due to the dam. This includes 187.29 ha of land falling in Papikonda WLS.

Displacement According to AP govt affidavit (page 10), 276 villages of AP, 4 villages of Chhattisgarh and 8 villages of Orissa would face submergence due to the Polavaram dam. The affidavit says (p 12), "The people going to be affected due to submergence as per latest EIA & EMP reports is 195 357".

⇒ **Orissa villages** The letter from Chief Engineer, Indira Sagar project to the district collector, Malkangiri on 29.9.'05 listed the villages to be affected in Malkangiri due to the Polavaram dam: Kothagudem, Madiguru, Motu, Muraliguda, Binayapuram, Alma, Baribacha, Peta, Nagaram, Reddypalem.

⇒ **Chhattisgarh villages** A similar letter to the district collector, Dantewada listed the villages in Dantewada, Chhattisgarh, to be affected due to the Polavaram dam: Mettaguda, Konta, Vanjanguda, Buridiguda, Ippaguda, Dondra, Chikoriguda, Ummarajaguda, Injaram, Fandiguda, Asirguda, Psugudem and Peddamguda. These lists contradict the statement on p 10, quoted earlier, but that does not seem to bother the AP govt.

Canals The length of the Right Main Canal is 174 km and that of the left main canal is 181.5 km. There will be no R&R package for the people displaced due to the canals, AP govt has said in the affidavit.

Polavaram: Orissa and Chhattisgarh oppose The Orissa govt has opposed the Polavaram project in hearing on June 26, '06 before the Centrally Empowered Committee (CEC) appointed by the Supreme Court. The representative from the Orissa Govt contended that the Public hearing was not conducted in the affected area and the construction of the dam is completely illegal because it is a blatant violation of the Environment Impact Assessment Notification, 1994 and Environment Impact Assessment Rule, 1997. He further stated that the construction of dam will result in the total submergence of 100 Ha of forestland with a rich wildlife. After hearing the argument from the applicants, CEC held that the all the states concerned should resolve these disputes among them. CEC further stated that they will not look into any of the public hearing or environmental clearance matter but only confine themselves to the dispute related to forestland and forest clearance under Forest (Conservation) Act, 1980.

⇒ Union MEF minister has reportedly assured the Orissa CM that he would ask the AP govt to redraw Polavaram project proposal to meet the stipulations set by the High Court. Official sources here said CM had met MEF minister in New Delhi on July 12 and expressed concern over the environmental clearance accorded to the Polavaram project. The project will adversely affect 6,000 tribals of Malkangiri district in the

state. The CM pointed out that over 100 ha of forest land in Orissa will be submerged if the project was implemented. He also informed the minister that the Orissa HC had directed AP to reformulate the project in such a manner that there is no submergence in Orissa.

⇒ At a meeting in Raipur on June 12, '06 between Irrigation Minister of AP and CM & Irrigation Minister of CG and senior officials of both states, CG govt made it clear that before CG govt can clear the project, a joint study and joint survey of the affected area will have to be conducted. The study would include all the relevant issues, including submergence, rehabilitation, environmental impacts, back water levels, etc. More over, since the area is inhabited by Schedule Tribes population, clearance from the gram sabhas will have to be taken. CG has asked AP to keep CG informed of all the developments about Polavaram project. At least 12 000 people from about 13 villages in Dantewada district would face submergence.

Petitions on violations, no decision The situation with petitions on the Polavaram seems to be that of apply, apply, no reply. Some of the pending petitions are:

⇒ AP HC: A petition challenging the continuing work on the project without basic clearances is pending for over a year. The project does not have even clearance from the Central Water Commission.

⇒ Orissa HC: A petition by a member of the legislative assembly, challenging the project without clearance from the state govt and without having a public hearing in the state. The HC has directed AP to redesign the project so that no land in Orissa would face submergence.

⇒ National Environment Appellate Authority: A petition challenging the environment clearance without proper EIA and without public hearing in Orissa and Chhattisgarh is pending.

⇒ SC: A comprehensive suit, challenging the project on the grounds of violations of the Environment Protection Act, Forests Conservation Act, Panchayats in the Schedule Area act, Panchayat Raj act, EIA notification, among others.

⇒ CEC: The petition challenges the ongoing work on the project without clearance for diverting 3223 ha forest land, without clearance for submergence of part of the Papikonda WLS, without clearance from Orissa & CG govt. A team from CEC is to visit the project in July '06.

Tadipudi LIS trial run Trial run of the Rs 376 crore Tadipudi Lift Irrigation Scheme to irrigate 2 lakh acres in W Godavari district was started on June 26, '06. The scheme requiring 20 MW of dedicated supply is expected to start operation in July to irrigate 75 000 acres. Questions have been raised about necessity of the scheme when Polavaram project is being taken up.

⇒ **Koil Sagar LIS – I** The AP Irrigation dept has awarded a Rs 184.86 crore order for the Koil Sagar LIS stage I to IVRCL Infrastructure & Projects. (*The Dainik Bhaskar*, *Deshbandhu* 130606, *The Hindu* 270606, *Business Line* 120706, 140706 Forest case update, June 06, *The Statesman* 130706)

DAMS in Ravi-Beas-Sutlej Basins

BBMB violates FCA AGAIN The Bhakra Beas Management Board has on midnight of June 30, '06 restarted dumping of silt from the balancing reservoir (in Sundernagar district in Himachal Pradesh), a part of the Pandoh dam project, into the Suketi khud, in violation of the Forest Conservation Act, 1980. The dumping will continue for two months. About 1400 acre feet silt will be dumped from the balancing reservoir to Suketi khad over the next two months. The case in this regard is pending in the High Court. BBMB affidavit in the court says this act is not in violation of the Water Pollution Act, 1974, but does not say anything about the violation of the FCA, as Suketi khad where the silt is being dumped is in forest area. The farmers of Balh Valley are unhappy as the dumped silt destroys their farms. The Environment Management Plan prepared by the National Environmental Engineering Research Institute also does not mention about FCA violation. This issue has been raised in the past too and the forest dept has sent several notices to BBMB, but BBMB has never applied for this dumping as required under the FCA. The forest conservator has said that forest dept will again send notice to BBMB.

⇒ **Bhakra Floods preparedness** Fearing flash floods due to abnormal rise in water level of Bhakra Dam, Punjab govt on June 29 geared up State Disaster Management Authority to put in place a disaster management Plan for the state in an event of any natural calamity. Chief Minister presided over the first meeting of state Disaster Management Authority. The state govt had on March 3 last constituted the Punjab Disaster Management Authority, the State Executive Committee and the District Disaster Management Authorities. Punjab had faced flood fury in 1991 and 1997 following release of excess water from the Bhakra Dam. The water level of Bhakra Dam was is expected to cross optimum level of 1680 feet due to melting of a glacier causing an inflow of 48,000 thousand cusec daily. On June 29, the water level at Bhakra reached 1569 feet, brought down from 1588 feet a month earlier. The May end figure was 52 feet higher than the level on the same date last year. However, these reports are in somewhat contradiction with the sudden drop in flow of water in Sutlej as claimed by Sutlej Jal Vidyut Nigam Limited, see the report in Hydro section below.

⇒ **Punjab proposal for SHPs on BML** At a meeting of BBMB partner states on July 11, Punjab proposal to build small hydro projects on various BBMB canals in Punjab was put up, but no decision could be taken. In an earlier meeting other partner states had opposed the Punjab contention that since the canals pass through its territory, it should have the right to develop such projects. (Tribune 300606, 030706, 120706, Indian Express 300606)

Pong Oustees: Some Respite? A recent Supreme Court order has allowed the people affected by Pong dam since 1964 to file petitions in HP too, in place of just

Rajasthan where many of them were supposed to be resettled. The affected people were feeling this to be big limitation due to the non cooperative attitude of Rajasthan govt. (Divya Himachal 290606)

Haryana pushes for storages on Ravi tributaries In a meeting with the Planning Commission for discussing 11th Plan Approach Paper, Haryana CM said that there was a need to construct storages on the Ujh & Basantar, tributaries of Ravi. "Even after signing the Indus Water Treaty in 1960, more than 3 MAF of water has been flowing to Pakistan", he said. (The Tribune 040706)

200 Punjab villages face risk due to Haryana Canals About 200 villages in Patiala, Samana and Dakala Assembly segments are facing seasonal flood risk due to the under construction Hansi Butana canal being constructed by Haryana, which may obstruct the drainage pattern in Ghaggar basin. These villages have been facing the risk due to the Ghaggar and its tributaries over the years, which has now increased. The residents of 20 villages have submitted a representation to the Punjab irrigation minister to stop the canal construction. Haryana started construction of the canal from Azimgarh villages, sharing border with Samana village in Patiala district a few months ago. The canal, about 20 km long, 20 ft deep and 27 ft wide, would run along the border. Residents demanded that at least three km of the canal should be constructed underground so that the Ghaggar and other rivulets, including the Patiala nadi, could flow over it. Haryana opposition leaders said that the canal has yet to get clearance from Central Water Commission, so it may not get any water even if it is constructed.

⇒ **Punjab opposes Haryana at BBMB meeting** At a meeting of partner states of BBMB on July 11, '06, Punjab opposed Haryana proposal to link its under construction Hnasi0Buttana canal to the Bhakra Main Line at Samana (Patiala), saying that this will harm the interests of Punjab farmers in Patiala, Sangrur and Mansa, that get water from BML downstream from Samana. This was the first time that Haryana was presenting the proposal at he formal meeting. Central Water Commission had earlier asked Haryana to get the consent of Punjab and Rajasthan for the proposal. Haryana has already started construction on the 109 km long canal, to be completed by the end of the year. Haryana wants to take 2000 cusecs water to South districts through this canal. However, the gradient available for the canal is very low, which is also expected to pose problems. Near Samana the BML passes through the Haryana territory where Haryana wants to link the HBC with BML. At this point BML carries 6975 cusecs water, of which 85% is for Haryana, 10% is for Rajasthan and 5% for Punjab. In a case filed in the Punjab & Haryana HC on the issue of land acquisition for the project, Punjab, Rajasthan & BBMB have said that this is an interstate issue. (Tribune 300606, 080706, 120706 *Dainik Bhaskar* 140706)

DAMS**China quietly builds a barrage on Sutlej**

According to front page top news report in *The Hindustan Times* (300606), China for years could be controlling the flow of water in Sutlej river flowing into India with a barrage on the river it may have built by 2002 if not earlier, as revealed by satellite photos. Located across Zada (Tsamda) gorge, the barrage is probably intended to generate power for the Zada town. A report in *The Tribune* (030706) seem to confirm the development, as it quoted Union Ministry of Water Officials wanting to assess the water storage/ diversion capacity of the barrage. A report in *The Hindustan Times* (080706) claimed that China has admitted that it has built a hydropower project on the Sutlej river near the Indo-Tibetan border.

India and China and have no treaty on sharing of waters of Sutlej (or for that matter any of the rivers that the two countries share). On April 11, '05 an MOU was signed between the two countries for sharing hydrological information of the Sutlej/ Tsangpo (the Chinese name for the river). However, Union Water Resources Ministry officials said that the MOU was not of much use in absence of water sharing treaty. China has not publicized the building of the barrage, but this could turn out to bad news for the downstream regions in India. Sutlej basin India has some of the biggest projects, including the existing projects like the Bhakra and Nathpa Jhakri and under construction projects like the Kol Dam and planned projects like the Khab, Karcham Wangtoo and Rampur, in addition to many others in the pipeline. Sutlej river in Kinnaur in Himachal Pradesh, where the river enters from Tibet, has seen a number of big floods and low flows (see reports below in Hydro section), the full reasons for many of them are not known. The 1998, 2002 and 2005 are only some of the recent such events.

Use of Hirakud water for industries opposed The Orissa govt has decided to provide 0.35 million acre feet of water from the Hirakud dam for industrial water use, for which there is no provision. The farmers of Sambalpur and Jharsuguda districts have opposed this decision as it would affect availability of water for the farmers. (The Financial Express 260606)

Tehri power costs THDC says provisional tariff works out to be Rs 6.86 /unit for 2006, based on fixed charge and annual design energy. This will come down to Rs 4.77 during 2007-8 and Rs 4.28 during 2008-9. It also says that consensus remains elusive. If this is at the bus bar, the cost would go up further by the time it reaches the consumer due to T&D cost and losses.

⇒ **Plans** THDC plans to complete the 1000 MW pump storage project by 2010 with the approval of the CCEA on July 6 at a cost of Rs 1657 crores, including IDC of Rs 81.64 crores. This project would not generate any net

electricity, but would be a consumer of electricity. However, it is expected to provide peak power to the northern grid states of Delhi 600 MW, Uttaranchal 200 MW, Rajasthan & Haryana 100 MW each). THDC also plans to take up hydro projects in the North East and in the neighbouring countries. (Project monitor 190606, Financial Express 070706, The Hindustan Times 100706)

Shamshabad fears fate of Harsud Shamshabad town in Vidisha district in Betwa basin in Madhya Pradesh is afraid of its fate being similar to that of Harsud after laying of foundation stone on June 1, '06 for a Rs 135.18 crore Sanjay Sagar (Bah) medium irrigation project about 12 km from the town. The 26.47 m high dam is to be constructed on Bah River. The town is surrounded by Sapan, Banjari and another stream, which all meet Bah River. Submergence marks have been put up in the lower areas of the town. (Dainik Bhaskar 280606)

Bihar violates SC orders for Durgawati Reservoir In violation of the Supreme Court order of Nov 13, 2000, against diversion of any land from sanctuary or national parks, on May 11, '04, Bihar govt, through a notification diverted 5.44 acres of land in Kaimur Wildlife Sanctuary in Kaimur district for the Durgawati Reservoir involving 46.3 m high earthen dam. The project started in 1977-78 at a cost of Rs 25.3 crores is yet to be completed even after spending Rs 245 crores. Current cost estimate for the project is Rs 361.69 crores. Union Ministry of Environment Forests have asked the state govt to stop work on the project, but MoEF expressed dismay that the work continues, also in contempt of court orders. (Indian Express 050606)

Koyna Dam Repair Strengthening work on Koyna dam in Maharashtra has been completed. The project, which was completed in 21 months, was needed to strengthen the 42-year old structure against the heavy flow of water during monsoons. Storage capacity at the dam's reservoir has increased by 183 Mm³ as a result of the work, which was undertaken by India's Soma Enterprise Ltd in a joint venture with SSHPR of Russia. In Sept '05, the water level in Koyna reservoir had reached alarming levels when 322 mm rainfall was recorded in the catchment area in 24 hours. It is expected that the fortified structure will be able to better handle such events in the future, as well as possible earthquakes. (International Water Power and Dam Construction 230606)

Gujarat Dam affected struggle More than one lakh families have been displaced due to Ukai Dam in South Gujarat; out of which more than 60 000 families haven't received any compensation. Remaining families too haven't received adequate compensation. In Choparwa, a dam has been built affecting about ten thousand families. These families have received meager one thousand rupees per acre. Here even the legal land acquisition process has not been completed, displaced people are continuously getting official notices till now. They continue to remain deprived from compensation. (A report from Lok Sangharsh Morcha July '06)

INTER STATE ISSUES

SC Notice on Babhali barrage The Supreme Court, following a civil suit filed by Andhra Pradesh, has issued notices to Maharashtra, centre and riparian states on the issue of Babhali barrage on Godavari just before the river enters AP from Maharashtra, in violation of the Godavari Tribunal Award, 1980. (The Times of India 080706)

Cauvery Tribunal: States reject assessors' report Karnataka and Tamil Nadu have rejected the report of the Assessors appointed by the Cauvery Tribunal. According to the Assessors estimate released in May '06, TN is to get 395 tmcft for irrigating 24.7 lakh acres, Karnataka 250 tmcft for irrigating 18.85 lakh acres, Kerala 33.4 tmcft and Pondicherry 7 tmcft. The estimate is based on the total average availability of 740 tmcft in the basin. A number of reasons were given for the rejection, including the incompleteness due to absence of break up between surface water and groundwater.

⇒ **Tribunal Divided** The differences between the Chairman Justice NP Singh and the two members NS Rao & Sudheer Narain came again on July 10, '06 when the two members asked the states if they would like the report by the assessors appointed by the Govt of India be made public on the GW availability in the basin. TN & Karnataka were against this. All four states gave a joint memo to the tribunal, stating that they would like no further arguments & would like the Tribunal to give the final verdict expeditiously. (The Hindu 300606, 120706)

Kerala at a loss in agreements with TN According to Kerala CM, every year Kerala was giving over 72 tmc water from Mullaperiyar to Tamil Nadu at a low price. But TN was buying water from Andhra Pradesh at Rs 3 crore per tmc. Thus, Kerala was losing huge amounts in the process. Earlier in June '06, when TN CM had requested the Kerala CM to release water from Neyyar dam for TN, Kerala CM said this could be considered if TN released water to Kerala as per the PAP treaty for irrigation in Chittur taluk in Palakkad.

Kerala wants control of 5 PAP dams Kerala Water Resource Minister has demanded that the five dams on Kerala territory in the Parambikulam Aliyear project should be handed over to Kerala for administration control. The dams are under Tamil Nadu administration control currently. Kerala govt also said that a review of the PAP agreement, which has been pending for 30 years, would get priority. The minister opposed in any increase in height of water storage in the Mullaperiyar Dam and said that the state will defend the constitutional validity of the Kerala Irrigation and Water Conservation Act, 2003, under which water level in the dams within the state cannot be increased without the permission of the Dam Safety Authority constituted under the act. TN has challenged the validity of the act in the Supreme Court. (The Hindu 050706, 140706)

HYDRO PROJECTS**UNDP REPORT FOR BHUTAN: BIG HEPS NOT GOOD FOR PEOPLE****What not to expect from Tala**

The commissioning of Tala HEP in Bhutan in 2006 could double the economic growth from 7 % to 14.2 %, but the high growth will not translate immediately into physical gains as in the creation of employment and reduction of poverty. For several years, the growth is expected to remain only on paper. According to the Royal Monetary Authority reports, the money generated from the project would be used to repay interest and principal on the Tala loan. Tala cost about Nu. 40 B of which 40 % is soft loan from India.

The Tala is expected to push up Bhutan's per capita income. Already because of the reduction in population estimates, down from earlier estimates of 700 000 to 553 000 in 2006, the per capita income has shot up. The prime minister's report 2005-6 revealed that Bhutan's per capita income, as of March '06, was US\$ 1,321, up from US\$ 760 in the previous year. Tala is expected to take it further up. But, for a while, that too is expected to remain mostly on paper. The loan repayment and infrastructure development will absorb all that cash.

In the employment generation and reduction of poverty (physical gains) front, hydropower has not done much to better the two most challenges facing Bhutan today even though it had been the main driving force of the Bhutanese economy for the better part of the last two decades. Bhutan's GDP growth rate was an average 7 %. According to a UNDP commissioned study 'Macroeconomics of Poverty Reduction: The Case Study of Bhutan', hydropower projects, however, were capital intensive and not labour intensive. Whatever labour used in the projects was also mostly foreign expatriates.

Exceptionally high rates of investment in the hydropower also contributed to the high economic growth rate, the study pointed out. Construction and related activities may have piggy-backed on the hydropower power, but it remained at its mercy, its growth rates fluctuating wildly during the commission of hydropower projects and its completion period.

Even in the construction phase of HEPS, employment opportunities were low pointed out RMA's 2004-05 annual report. According to the UNDP study the rapid economic growth, driven by hydropower, has not transformed the Bhutanese economy into a modern industrial society in terms of creating a strong manufacturing base, which had huge potential for generating employment and reducing poverty. In fact, manufacturing was the weakest link of the industrial sector it said. Study showed that nearly 32 % of the Bhutanese population lived below US\$ 0.5 a day. The unemployment rate was 3.1 % in 2005 up from 1.4 % in 1998. (Kuensel online 210606)

CEA, Planning Commission oppose J&K HEPs

The Central Electricity Authority and the Planning Commission have opposed the taking up of 44 MW Chutak and 45 MW Nimo Bozgo HEPs in Ladakh in Jammu & Kashmir, saying they are not viable and it would be more cost effective to lay a transmission line from the Northern grid to the region in stead. The two HEPs have been handed over to the NHPC some years back, were cleared by the Cabinet Committee on Economic Affairs on June 4, '06 even against this opposition as the local govt was in favour of these two HEPs. The projects would be able to generate power for less than six months in view of severe winter. The Prime Minister had laid foundation stones for the project in June 2005, a day before the Public Investment Board cleared the project. The two projects did not figure in the PM's package for J&K announced in Nov '04, but have now been included in the package. The restrictions imposed by the Indus treaty was also one of the grounds for opposition by CEA. The cost of power from the project is likely to be Rs 10 per unit, but is expected to be lower than Rs 17 now being spent by transport of diesel to the region for power generation.

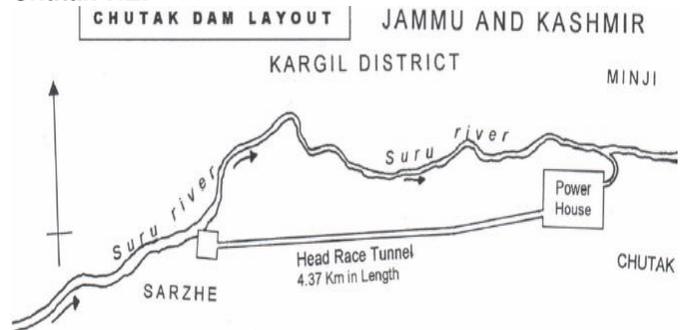
Nimo Bozgo HEP



(schematic map not to scale)

According to the environmental clearance letter for the Nimo Bozgo HEP dated May 30, '05, the project "is a run-of-river scheme is proposed on the Indus river about one km upstream of village Alchi in Leh district of J & K. A concrete gravity dam with 57 m height from deepest foundation level will be constructed. Total land requirement is 515.2 ha. Out of that 12 ha is private land and rest 503.2 ha is Govt land. The 11th Centaury Alchi Monastery is located 1.4 Km down stream of the project site. Due to this project a total of 19 families from four villages will be affected on account of acquisition of their land. Public Hearing was held on 15.12.2004 at village Saspol, district Leh. The capital cost of the project is 637.97 Crores at Jan '04 price level." Rs 183.3 crore is central govt equity, Rs 270 crore is central govt grant. Rs 157.71 crore is to be arranged by market borrowings. The project will use reallocated grant earmarked for the 220 kv Srinagar-Leh transmission line.

Chutak HEP



(Schematic map not to scale)

The project would cost Rs 621.26 crores, of which central govt equity is Rs 186.38 crores & grant is Rs 364 crores. The balance amount of Rs 70.88 crores is to be commercial loan. (The Economic Times 050605)

Chutak Hydroelectric Project – Salient features	
Installed Capacity	(4x11MW) 44 MW
Location of the project	In Kargil district of J&K, on the Suru river. 205 km from Srinagar. Barrage at village Sarzhe, power house on the right bank of Suru river at Chutak village, just opposite of village Minji. Power house and barrage site is 9 and 15 km away respectively from Kargil.
Yearly generation	212.93 MU. 90% dependable year. Minimum 12 MW generation in winter.
Feasibility report	Prepared by NHPC in June 2003 for 30 MW capacity
DRP	Prepared by NHPC of 44 MW potential
TEA	April 23 04 at a cost of Rs 655.65 crore at Sept '03 PL
Tariff	Less than Rs 15
Cost	Rs 678 crore at Jan '05 PL. Completion cost 788 crore
Land required	70 ha (govt 41 ha and private 29 ha) No forest land
Submergence	13.5 hectare
Family affected	105
Displacement	Nil (no acquisition of homestead land)
Completion	54 months from the date of agreement
Data on dam	
Barrage	47.5 m long
Head race tunnel	4.37 km long and 5.9 m diameter
Tail race tunnel	50 m length and 5.9 m diameter. Horse shoe shaped
Penstocks	4, 2.3 m in diameter and 31 m in length.
Power House	Underground. Four Francis vertical shaft turbines.
Gross head	63.4 m

Nimo Bozgo Hydroelectric Project – Salient Features	
Location	In Leh district of J&K, on the Indus river. 70 km from Leh.
Generation	239.33 MU 90% dependable year. Minimum 14MW
DRP	Prepared by NHPC
TEA	March 16, '04 at a cost of Rs 631.54 crore at Sept '03 PL
Cost	Rs 661crore at Jan 2005 PL. Completion cost 761 crore
Land required	515.2 ha (govt 503.2 ha - private 12 ha) No forest land.
Submergence	434 hectare
Family affected	19
Completion	48 months from the date of agreement of govt sanction.
Data on dam	
Barrage	57 m high concrete gravity dam
Diversion channel	372 m long
Spillway	Orifice type 5 in number
Penstocks	3, Each 3.3 m in diameter and 63m in length.
Power House	At dam-toe.
Gross head	37.25 m

3 women die after sudden release of water from Maneri Bhali Dam

Due to sudden release of water without prior warning into Bhagirathi River downstream of the Maneri Bhali dam, three women were washed away. Following pressure from agitated people, the district magistrate of Uttar Kashi district has ordered filing a case against the Executive Engineer of the dam after a number of organisations demanded action against the guilty. (*Rashtriya Sahara* 040706, *The Hindu* 050706)

Vishnuprayag commissioned The 400 MW Vishnuprayag HEP on Alaknanda River in Chamoli district of JP associates commences generation on June 17, '06, claimed the company through full page advertisements. It claimed that the 1516 m long pressure shaft has the highest head of water for any project in India. The 4 m dia head race tunnel is 11.3 km long. The company claimed that the project offers levelised tariff of Rs 2 per unit, which is clearly a misleading claim. (*The Hindustan Times* 300606)

Ganguwal HEP's renovated turbine damaged A recently renovated turbine of a 25 MW unit the BBMB's Ganguwal HEP has been damaged on June 19 due to excessive vibrations, putting it out of operation for at least one year. Already one turbine each at Ganguwal and Kotla HEPs, located on Nangal hydel channel are under renovation. The turbines renovated by BHEL have been giving trouble since inception. The generation at the renovated turbines never reached the target of 25.2 MW and the capacity was reset at 24 MW at a board meeting. PSEB authorities have demanded that BHEL should be penalized for this under performance. (*The Tribune* 260606)

Bihar Plan for hydro projects on Kosi The govt of Bihar is planning to install 14 hydropower stations with total capacity of 226 MW in Supaul (10 places), Madhepura (two) Saharsa & Areria (one each) districts in Kosi basin. The pre-feasibility reports for the projects to be taken up by the Bihar Hydropower Corp have been completed. In addition, small hydro projects at sixteen places have been going on and one project at Kataiya (Supaul) is already generating power. Among the planned schemes, the biggest will be a 3 X 42 MW Dakmara project in Supaul. The other projects planned in Supaul district are: Sanjaydhar, Sursadhar, Baghlidhar, Chilaunidhar, Tilabehdhar, Mahipatti, Singawan, Sonbarsa and Korla Patti. The rest of the planned projects are: Arardhar and Parvandhar (Madhepura), Dhardahdhar (Saharsa) and 10 MW unit on Parman river (Areria). (*Hindustan* 230606)

HEP at Harangi Dam Energy Development Company Ltd has signed an agreement with the Karnataka govt to set up a 6 MW hydropower project at the existing Harangi Dam. (*The Hindustan Times* 130706)

HYDRO PROJECTS IN HIMACHAL PRADESH

NEERI study in HP

HEPs severely impact fisheries, river biodiversity

According to a study done by the National Environmental Engineering Institute for BBMB, over the last 3 years, there has been serious impact of ongoing hydropower construction in Sutlej and Beas rivers in HP on the fisheries and biodiversity in the rivers and reservoirs. BBMB was directed by the state pollution board to take up the study. The production of silver carp fish has come down from 950 T in 2004 to 600 T now.

The HP fisheries dept has asked Rs 2.5 crore compensation from NTPC for this loss. The increased silt in the river increases turbidity and reduces the oxygen intake in the water, leading to impact on all life in the rivers. The report finds that there is deficiency of required nutrients in the river. However, NEERI could not analyse the sediment transport as it could not get the data necessary for the model.

Adverse impact of Beas Sutlej River link The study found that when relatively cold water from Beas enters Sutlej at Slapper via Dehar HEP, there is a certain thermal reaction, which has adverse impact on the aquatic life and growth of natural nutrients. This also has impact on fisheries. (*Dainik Bhaskar* 110706, also see p 7 of *DRP* June '06 issue)

Karcham Wangtoo Agitation

The Kinnaur district administration that was refusing to talk to the Karcham Wangtoo Project Sangharsh Samity has now agreed to talk to them. However the Samity boycotted the meeting called by the district administration on June 16. The Samity has said that till the govt does not give written response to the 18 point demands from the samity, there is no question of talking with the Samity.

In the meantime, the Samity met the District Forest Officer and demanded that the permission given by the forest dept to the project authorities to cut over 1200 green trees be cancelled, following ban by the HP High Court on cutting any green tree in the state.

The Karcham Wangtoo and Khab Sasho Sangharsh Samities have asked the state govt not to take up big hydro projects like the Khab and the Karcham Wangtoo on Sutlej River in view of the precarious situation of natural resources in the region, including sudden floods, high silt, sudden reduction in flow in the river, receding glaciers and unstable geology. A meeting had been organized between the Karcham Wangtoo Sangharsh Samity and district administration on June 24, '06. (*Divya Himachal* 170606, 230606, 240606 *The Tribune* 260606)

Khab Agitation told: *If you protest, you will be jailed*

The Himachal Pradesh govt on June 27 arrested eight persons from Pooh Tehsil in Kinnaur district for peacefully opposing the Khab project. False cases were filed against the people. On June 28, the Chief Judicial Magistrate in Kinnaur granted bail to the arrested persons after they argued that they were only exercising their right to peacefully protest unacceptable projects. There is a feeling on anger among the people for HP & Union govt for forcing destructive large projects on them.

The agitated people to be affected by the proposed Khab dam on Sutlej River took out a big rally on June 21, '06 demanding that the work for survey of the project be stopped. However, the project officials reportedly attacked the agitating people. This happened after it became clear that a number of villages including Namgyal, Khab and Shaso villages will face submergence due to the project, as per the stones marking the submergence area fixed by the project survey team, contrary to the earlier claim of Sutlej Jal Vidyut Nigam that no village will be affected. The district administration, unfortunately, has filed cases against 18 persons, treating this as a law and order problem. This is unfortunate as the agitation by the affected people has been going on for over 1.5 years and the survey work had to be stopped 5 months back due to the agitation. In stead of having a dialogue with the people, the company tried to restart the survey forcibly, leading to the conflict situation. The Karcham Wangtoo Project Sangharsh Samity has demanded that the cases against the local people be withdrawn and investigation conducted against the responsible company officials.

On June 22, over 700 people from the affected villages marched to Pooh police station and demanded that the false cases be withdrawn. The police had to promise the affected people that no action will be taken against anyone till investigations are complete. Complaints were filed by the women against the SJVN officials for misbehaving with them and also threatening them with dire consequences. The administration assured the agitated people that the survey work will not be restarted till there is a dialogue with the govt on the whole issue. The agitated people warned that they will again have to start agitation if survey work is restarted.

However, violating the promise to the affected people, police arrested eight persons on June 27, '06 for the June 21 protests under various sections including section 454, which is non bail-able offence. However, the Kinnaur district Judicial magistrate freed them on bail. 16 more persons were arrested, including elected panchayat representatives on June 29, and were freed on bail on June 30. However, the administration has yet to take action on the complaint filed by the affected people against the SJVN officials under the tribal atrocities act. (Local people, Divya Himachal 230606, 240606, 010706, The Tribune 290606)

Parvati 2 HEP: Landslide hits the project NHPC & Gammon India ignore warnings, risks lives

Seventy labourers had narrow escape when debris fell onto the under construction main power house of the NHPC's Parvati 2 HEP at Seund in Sainj in Kulu district in Himachal Pradesh on June 27, '06. The cracks around the hill surrounding the project had appeared ten days earlier & labourers and local people had warned the project authorities, but both NHPC & Gammon India went ahead with the work, risking the lives of the labourers & people and properties of the local communities. Part of the mountain slid in the early morning, damaging a portion of the main power house. NHPC & Gammon must be brought to book for this.

Cracks reappear for the sixth time Earlier cracks had appeared on the Suind hills behind the under construction power house tunnel of NHPC's Parvati 2 project in Kulu district in Himachal Pradesh for the sixth time on June 17-18 itself. 27 houses (in Raila, Dahra, Rumra, Shulga and Bagidhar villages) have already been affected by resultant land slides, but the project authorities have yet to compensate them. 70 Labourers working in the tunnel being constructed by the Gammon India were feeling unsafe and were working under force. The cracks first appeared on April 16, '04. Gammon India estimates the losses at Rs 5 crores. The work at the risky site has been stopped for the time being.

Typical of callousness of the company, NHPC says the cracks & landslides are due to natural processes, when local people feel this is due to the blasting & construction work for the project. The company's attempt to escape responsibility of the impacts of the project work is typical of the attitude of companies involved in construction of such projects. Lack of mechanism to establish the responsibilities for such impacts is a big lacuna in implementation of large HEPs. The local people also feel that the project authorities have destroyed a number of places of religious & cultural importance. (Divya Himachal 190606, 200606, 290606 The Tribune 280606)

Reliance-PGC's Kol-Parvati transmission line

Reliance Energy has written to Power Ministry to direct the Power Grid Corp to formally sign the JV with REL for the Rs 750 crores transmission project (TP) to evacuate the power from the 800 MW Kol & 800 MW Parvati-2 HEP. The bid was won by REL-PGC in July '04 in international bidding. The 400 kv TP in which REL will have 74% share has been cleared by the cabinet. This will be the second JV in TP after the Tata-PGC for Tala HEP from Bhutan. The PGC is in the process of setting up JV with Essar Power, Torrent, Jindal & IL&FS. So far, no private company has executed any TP on its own. PGC is also in the process of selecting a company that would build the first private TP in Maharashtra & Gujarat at an estimated investment of Rs 1 500 crore. The Cabinet has cleared the PGC's Rs 557 crore TP for 520 MW Parvati-3 HEP. (The Economic Times 120706, 140706)

Nathpa Jhakri: stopped for water shortage, silt 2 units of the 1500 MW Nathpa Jhakri HEP were stopped on June 18, following reduction in flow in Sutlej River to 265 cumecs, down from 1058 cumecs on May 28 and 450 cumecs on June 13. On June 19, the flow further reduced to 230 cumecs, water flow in Sutlej in Khab was 40 cumecs and in Spiti the flow was 57 cumecs. 380-400 cumecs water is required to run all six units. This is an unusual phenomenon in the middle of summer when the flow in the snow fed river has gone down. Power generation at the 120 MW Sanjay Bhaba (with only 11 cumecs, producing 100 MW) and also the 22.5 MW Ghanvi HEP (producing 7-10 MW) has reduced too. Sudden drop in temperature is the likely reason for this.

⇒ On July 7, NJP had to be stopped for 5 hours to clear silt.

⇒ On July 8, generation was started at 0800, but had to be stopped at 12.30 hrs due to high silt. The project remained shut down on June 9 & 10. The silt level at noon on July 10 was 5000-6000 ppm against requirement of 4000 ppm; discharge was 1200 cumecs (1245 cumecs on July 9 at 4 pm; silt level of 14000 ppm) against normal discharge of 500-600 cumecs. On July 9, Bhakra had inflow of 55 000 cusecs, up from 41 000 a day before. 5 units of NJP started generation at night on July 11. (Divya Himachal 190606, 200606 The Tribune, Indian Express 090706, 100706, 110706 The Hindustan Times 110706)

Kol HEP delayed: Foundation problems NTPC's Kol Dam on Sutlej river has been delayed by about 11 months. NTPC says that dam foundation grouting is the most critical part of the project and that the consultant is taking additional time to freeze it. Power Ministry has asked NTPC to take up more hydro projects.

⇒ **Discrimination in compensation** The affected people from Karsong tehsil around Tattapani have demanded that the compensation for land taken from the tehsil for the Kol Dam should be on line with the same given to the affected people from other areas like Shimla district. Since this is not the case, affected people have written to the CM with their demands.

⇒ **NTPC Board decisions** The NTPC Board of Directors has approved setting up of the 600 MW Loharinag-Pala hydroelectric power plant in Uttaranchal at an estimated investment of Rs 3,282.9 crore. The board also approved construction of a lift pump house of Farakka feeder canal as capital addition scheme at Farakka super thermal power plant at a cost of Rs 128.4 crore, it informed the stock exchanges.

⇒ **NTPC opposes HP demands** NTPC has written to the Union Power Ministry against some of the demands of the HP govt. The project is being taken up on BOOM (Build, Own, Operate, Maintain) basis. HP govt wants to restrict the time period of the Feb 2000 agreement to 40 years, wants NTPC to allocate 1.5% of the project cost for local area development committee and employ at least 70% of the employees from HP. (Divya Himachal 240606, The Hindustan Times, The Economic Times 270606, The Hindu 010706)

Fresh probe into Baspa flood damages The HP govt has launched third probe into the reasons for sudden release of water from Baspa HEP in July 2005, leading to extensive damages in the downstream area. The first probe was done by the then SDM of Kalpa Sumit Khimta soon after the floods. In Feb '06 RL Chauhan, former member of the SEB was asked to technically investigate in two weeks the causes and reasons of flash floods. Now the govt has asked Capt Raman Sharma, Additional DM of Pooh to reinvestigate the matter & "assess the danger caused upstream & downstream during flash floods in Baspa". A senior official of the Jaypee said, "If we had not released the extra water in a phased manner, all gates & other infrastructure of the project would have been washed away".

⇒ **Baspa stopped for silt** on July 8, Baspa HEP generation was stopped due to high silt in the river. On July 9 too the generation had to be stopped for a few hours due to high water level (110 cumecs as against normal discharge of 70 cumecs) and high silt content.

⇒ **Officers fined for negligence** Seven officers of the Himachal Administration Service have been found guilty of negligence in duty, leading to financial losses of Rs 48 lakh while they were SDM cum Land Acquisition Officers at Kalpa in Kinnaur during 1997-2004. They have been asked to make good the loss. In 1997, 28 tribals whose lands were acquired for the Baspa project had approached the district & sessions court for review of the compensation. The DSC had asked the SDM to review the cases. However, no action was taken till 2004. (The Tribune 060706, 110706, 120706)

The World Bank funded SHP in HP The Ascent Hydro has invited national competitive bids for civil & hydro mechanical works comprising diversion weir, water conductor in open and tunnel, desilting chamber, fore bay power house, tail race channel & associated works for the following three SHPs that are funded by the International Finance Corp, the private sector arm of the WB. The company has also called international bidding for the electro-mechanical equipments separately.

Project	Capacity MW		Location	Estimated Cost of civil works
Sechi	2.25	X	Sechi khad on right bank of Sutlej in Kulu district	Rs 12.5 crores
Melan	2.25	X	Melan khad on left bank of Sutlej, Kinnaur district	Rs 13 crores
Panwi	2.0	X	Panwi khad on left bank of Sutlej, Kinnaur district	Rs 12 crores

(The Tribune 080706)

Chamera-3: Labourers killed Three labourers connected with CITU and working at NHPC's Chamera-3 HEP in Chamba district in HP were killed allegedly by contractors hired by the Hindustan Construction Company. The angry labourers held HCC responsible for the killing and stopped work at a number of HEPs including Parvati HEP. Following agitation by the workers, the work had to be stopped on June 12. The HCC declared start of the work on July 3, '06. (Divya Himachal 120606, The Tribune 030706)

HYDRO PROJECT IN NORTH EAST INDIA

MEF Regional office report

Indictment for NHPC's Lower Subansiri HEP

The 2006 monitoring report of the Union Ministry of Environment and Forests North Eastern Regional Office has described the project compliance for the 2000 MW Lower Subansiri HEP by the implementing agency National Hydroelectric Power Corp as not satisfactory. Dialogue Forum, a North East-based environment group has demanded immediate halt to the work of the project.

The organisation quoted the report of the MoEF Regional Office, which states, among others, that scattered hutments on the roads and other areas may pose health hazards to surrounding areas and may also affect the river. The hutments should be removed and the workers should be allowed to stay in camps only with all provisions of toilet water. The report has also observed that there have been instances of encroachment in forest areas for making labor camps. It has further stated that the State Forest Research Institute of Arunachal Pradesh has done only preliminary survey of the area for orchids, despite the fact that the area has orchid species in abundance.

Though there was a condition for the implementing agency that a hatchery should be created in the vicinity of the Subansiri reservoir with all the required aquaculture facilities meant for development of artificial seed of the migratory fishes for stocking in the reservoir and river stretch, it has not come up, said the MoEF Regional Office monitoring report.

The Zoological Survey of India and the Botanical Survey of India have also not initiated the study on biodiversity and wildlife habitats in reference to the areas being submerged by the project.

Similarly, the sub-contract labourers working for the project are using fuel wood despite there being a condition to supply adequate free fuel to the labourers. It is also not clear as to whether the sub-contract labourers are provided with health care facilities.

Moreover, the six monthly monitoring reports sent by the project authorities to the Regional Office of MoEF expose it that the 'project compliance does not come under the category of satisfactory compliance', the MoEF Regional Office report said.

The Dialogue Forum has also resented the fact that the MoEF has remained silent on the issue despite such an adverse report from its regional office. (Assam Tribune 270606)

Likkim-Ro HEP given to private company for O&M

The 24 MW Likkim-Ro HEP in Nagaland, the only project in the state sector in Nagaland was commissioned in 2001-02 (16 MW on 120901) and 2002-03 (8 MW). It produced just 4 MU in 2001-02, 2 MU in 2002-3 and nil in the next three years and even in April 2006. According to news reports (Financial Express 060706), the project is now being handed over to Gurgaon based private company NEC Energy for operation and maintenance. Nagaland Post earlier reported (see *Dams, Rivers & People*, Feb-March '06 issue, page 22) that this is a Korean company and is also scouting for Phase II of the Doyang HEP.

Lanco Energy takes up 500 MW Teesta VI Lanco Energy Pvt Ltd is setting up the 4 X125 MW Teesta Stage VI HEP in Tharkola, South District of Sikkim. It has invited International Competitive bids for the electro mechanical works for the project. (The Economic Times 070706)

POWER OPTIONS

TN wind generators asked to back down again The Tamil Nadu wind generators were being told to back down till two days ago because of high grid frequency caused by high hydro and thermal operations. Now with the Neyveli plants shut down due to workers strike, the wind turbines are supplying about 1100 MW to the state grid. Of the power generated from the 2930 MW installed wind capacity in the state, about 35% is sold to the grid and the rest is used for captive purposes. (Business Line 060706)

⇒ **Suzlon plan** Suzlon plans to set up a Rs 1000 crore wind mill manufacturing unit near Padubiri in Udipi district in Karnataka with a capacity to produce 1500 MW capacity mills. (The Hindustan Times 110706)

25 000 MW can be saved through conservation

According to Union Ministry for Power, nearly 25,000 MW of capacity creation through energy efficiency in the electricity sector alone has been estimated in India. Energy conservation potential for the economy as a whole has been assessed as 23% with maximum potential in industrial and agricultural sectors. Energy intensity per unit of GDP in India is 1.5 times of the US and 3.7 times that in Japan, signifying the energy loss. While the steel sector worldwide consumes 4 G Cal/T, in India the sector consumes 8-9.55 GCal/T. IREDA estimates the potential for energy conservation in aluminum and steel at 10% and that in textile and pulp and paper at 25%.

However, these figures have been making the rounds for five years now, but power ministry has little interest in energy conservation as the ministry spends all available energy in adding new capacities. In 2001, Union govt also passed the Energy Conservation Act, again without any great impact on energy conservation achievement. (www.powermin.nic.in, Financial Express 150606)

CFL STORY FOLLOW UP**Sri Lanka to provide free CFL bulbs to save energy**

The Ceylon Electricity Board is going to provide good quality compact florescent light bulbs free of charge to consumers as a measure to save electricity. In phase-1, one bulb each will be provided and after six months, another bulb will be offered for those who save 10% of their electricity per month. The CEB says that 50% of electricity used for lighting could be saved if consumers turn to CFL. A good quality CFL is around ten-fold more expensive in the local market and therefore the majority of consumers cannot afford them.

Lighting consumes 19% of electricity A new report by International Energy Agency *Light's Labour Lost – Policies for Energy Efficient Light* has pointed out that 19% of the total global electricity production is used for lighting. Lighting requires as much electricity as is produced by all gas-fired generation and 15% more than those produced either by hydro or nuclear power. A global switch to efficient lighting systems would trim the world's electricity bill by nearly one-tenth. The carbon dioxide emissions saved by such a switch would, it concludes, dwarf cuts so far achieved by adopting wind and solar power. The biggest consumer is the fluorescent tube. Commercial and public sector buildings account for 43% of the electricity used for lighting; and here, fluorescents dominate. The efficiency of tubes can vary widely, between about 15% and 60%.

"There is a strong case for introducing lighting measures into building codes. Currently codes have a lot of energy measures in them, but with few exceptions there aren't specific provisions for lighting." Such codes could, for example, mandate the use of highly-efficient fluorescent tubes and ballasts, the devices which regulate input voltages for the lamps; at worst these can consume 40% of the energy going into the system. China, the IEA reports, has recently developed such codes. If they are implemented in all new buildings, this would "...offset the need for a new Three Gorges Dam project every eight years".

The annual cost of this service, including energy, equipment and labour is USD 360 B, about 1% of global GDP, electricity accounts for two thirds of the cost. Continuation of current practices would lead to 80% increase in energy demand for lighting by 2030, but use of efficient techniques can help reduce this.

The incandescent light bulb, developed a century and a quarter ago by luminaries including Sir Joseph Swan and Thomas Edison, still produces almost half of the light used in homes around the world. But incandescent bulbs are very inefficient, converting only about 5% of the energy they receive into light. (www.colombopage.com 270606, BBC 300606, Business Line 050706, see cover story in *Dams, Rivers & People*, June 2006)

INTER LINKING OF RIVERS

NWDA Objectives modified A "Special General Meeting of the National Water Development Agency (NWDA) Society" approved the modification in objectives of NWDA to include (i) preparation of detailed project reports of river link proposals under National Perspective Plan for Water Resources Development after concurrence of the concerned States and (ii) to prepare pre-feasibility/feasibility reports of the intra-state links as may be proposed by the States.

This is a big change in the mandate of NWDA, done without any consultation with the people of the country. Shows the total non transparent, non participatory functioning of the Ministry.

At the meeting, Union Ministry of Water Resources said that efforts are being made by this Ministry, Central Water Commission and NWDA to arrive at consensus for taking up the work of DPR for Par-Tapi-Narmada and Damanganga-Pinjal Links involving Maharashtra & Gujarat and also for Godavari (Polavaram)-Krishna (Vijayawada) link involving Orissa, Chattisgarh, MP, AP, Maharashtra, Karnataka, Kerala, Tamil Nadu & Pondicherry. It is interesting to note that Parbati-Kalisindh-Chambal link does not figure in this list.

W Bengal opposes Manas-Sankosh-Teesta Link

"There has been a proposal from the Centre to interlink the Teesta, Sankosh and Manas rivers in North Bengal and link it with the Ganga. The objective is to ensure a good supply of water to Bihar, Uttar Pradesh, Gujarat and Rajasthan," said Subhash Naskar, state minister for water resources and irrigation. However, the state government has decided to oppose the proposed interlinking of the three rivers on two grounds. First, West Bengal will be deprived of the necessary and adequate water supply for irrigation if the interlinking project materialises. "This will inevitably jeopardise the agricultural production of the state," said Naskar. Moreover, the state government apprehends that the proposed interlinking could lead to the destruction of the elephant corridors near the forest areas in North Bengal. However, as quoted elsewhere, (*Kalantar*, CPI daily, 280606), the minister said that the link can be taken up if taken in an alternative way so that tea plantations and forests are not affected.

"A number of factors have come into play. Environmental blunders could be a possibility but what one first needs to look at is who the project will serve, how it will be undertaken & if it is feasible at all," said VK Yadav, Deputy Chief Wildlife Warden, W Bengal.

Bihar proposal opposed by W Bengal & Assam In the meeting, proposal of Bihar to first have interlinking of rivers within the state before taking any water outside the state was opposed by W Bengal and Assam on the grounds that this could increase interstate disputes. (PIB, Indian Express 280606, *Hindustan* 290606)

Ken Betwa Link gets permission for survey in PTR NWDA has claimed that the Union Ministry for Environment & Forests has given permission for survey for the proposed Ken Betwa River Link project inside the Panna Tiger Reserve on the condition that no construction work be done inside the Park. According to Superintending Engineer in charge of the Link, 25% of the survey for the KBL has been completed. (Dainik Bhaskar 230606)

IRRIGATION

Tunga lift canals to pass through sanctuary The Tunga Lift Irrigation Project meant to take waters to the Shimoga and Honnali Taluka of Davangere district has been held up because of the Union of India not clearing diversion of 170 acres of forest land for laying the canals, including 30 km section that will pass through the Shettihali Wildlife Sanctuary. The project that was given the financial and technical approval in 1991 envisages the diversion of the Tunga waters to the Goudanakere Dam through the Hayhole dam and the Berehalla tank. It is proposed to lift 108 cusecs of water from the Tunga dam at Gajanur and release it into the Hayhole Dam. From here the water is to be lifted with the help of 4 X 400 hp pumps to fill up the Berehalla dam about 3.5 km away, from where water is to be lifted and channeled to Goudankere. (PA Update June '06)

WATER SUPPLY

JP's IT University asked to stop work The Sub Divisional Magistrate has asked the Jaiprakash University (Richhana in Solan district in Himachal Pradesh) to stop work at Wakanghat due to opposition of the local people. The agitated people from seven panchayats (27 villages are likely to be affected) in Mamlig area had to resort to blocking the road as their water supply was stopped after the govt gave 11 biswa land to the University on Gambar river and Sari stream (which meets Gambar) and allowed JP to take water from there. The SDM has said that if the work is not stopped, the lease given to the University will be cancelled as the demand of the local people is justified. People have been asking the govt as to why the Panchayats not asked before giving permission to JP University to take water from the streams. Hundreds of acres of land is being irrigated from the Gambar river water, which would be affected by the extraction of water by the JP Information Technology Institute. (Divya Himachal 120606, 130606, 170606)

WATER POLLUTION

Slow Poisoning of Harike Lake Harike barrage built in the early 1950s, downstream from the point where Beas and Sutlej rivers meet, to feed waters of these rivers to Sirhind, Rajasthan, Eastern, Makhu and Bikaner (or Gang) Canals has over the years collected on its bed a lot of pollutants. When Punjab CM was shown the black water flowing down the Sirhind feeder on May 30 at Muktsar, he promised to get the situation rectified. The

Punjab Pollution Control Board issued orders on June 6 to close down some 176 polluting industrial units in the two towns situated on the banks of the rivers feeding the Harike lake. The Sutlej is more polluted than Beas before the two rivers feed the lake. However, sewage treatment plants are needed for industrial and urban effluents from Ludhiana and Jalandhar. Budha Nallah, which carries for some distance the sewage before dropping in Sutlej, needs to be improved. (The Tribune 140706)

GAP: A comparison According to a study of the Ganga Action Plan launched in 1985 by the Harvard Institute of International Development between 1995-7, done for the Planning Commission and released in 2000 as the GAP Phase I was to end in March 2000, the performance cannot be written off when compared to similar programmes on other rivers of the World.

	Ganga	Thames	Rhine	Danube
Length, km	2857	245	1320	NA
Population served, m	500	NA	50	86
Cleaning time, years	13 by 1998	30	50	NA
Restoration cost, Rs B	11 by 1998	5	1940	NA

NA: Not available

Current approved cost of GAP II is Rs 652.89 crores, out of which Rs 240.72 crore has been released. 79 of the schemes have been completed out of the 268 sanctioned schemes under phase under operation in 60 towns over five states.

Presently, the Centrally sponsored scheme of National River Conservation Plan is under implementation in 160 towns along polluted stretches of 34 rivers spread over 20 States at an approved cost of Rs.4736 crore. The major rivers being Ganga, Yamuna, Gomti, Damodar, Sutlej, Krishna, Cauvery, Godavari etc. among others. (PIB 100706, The Hindu 130706)

WATER OPTIONS

Stop dams benefited villagers in MP Indore based Mr G T Bhimte, a retired Superintending Engineer from irrigation Dept of Madhya Pradesh, had realized the importance of check dams when he was Executive Engineer in Chhindwara dist of Madhya Pradesh. With the help from the then Collector of the dist, Mr Antony Disa, he executed 20 stop dams in the dist. After transfer from Chhindwara to Hoshangabad he executed 30 stop dams in remote areas with the help from Ms Ajita Vajpayee, then Collector of the dist. When he was transferred at Bhopal he executed Sallaia stop dam at a cost of Rs 0.3 M on trial basis. The then Collector of Bhopal, encouraged with the project, sanctioned four more stop dams named, Gol (Rs 0.3 M), Inayatpur (Rs 0.3 M), Daulatpur (Rs 0.3 M) and Hinotia (Rs 0.8 M) in Bhopal dist in 1994-95. These projects had been constructed in four months on Kalia-Sot River and some local streams. Over 500 acres of 6 villages are benefiting from these stop dams and these dams fulfill the irrigation

and other needs of the area for whole year. Mr Bhimte says that with investment of Rs two million, every year people produce worth over Rs 5 m with the help from these stop dams. (A report from G T Bhimte 280505)

Farm ponds in Gujarat To recharge groundwater, farmers in Gujarat have dug 1.27 lakh small ponds in their farms in 100 days. Each farmer can dig two ponds, each with 200 cubic m capacity and they are paid under the National Rural Employment generation Act. Punjab State Farmers Commission has asked state govt to implement similar scheme in Punjab. (Tribune 040606)

Anicut Plan in Rajasthan The Rajasthan govt plans to build 967 anicuts in 30 districts (only two districts not included are Ganganagar & Hanumangarh as they are in plains area where it is not possible to build anicuts) at a total cost of Rs 66.16 crores, to be provided by NABARD. The anicuts would be handed over to the panchayats after the operation by the water resources dept for two years. (*Dainik Bhaskar* 080706)

Water Body Census The Union water resources minister has said that a countrywide survey of large & small reservoirs will be undertaken. He has written to the CM of 14 states to review of the progress of the union govt scheme to rejuvenate the local water bodies. Union finance ministry has allocated Rs 200 crores for the first phase of the scheme being taken up in 24 districts covering 1116 water bodies, to be completed by March 27, '07. (The Times of India 300606, The Hindu 010706)

GROUNDWATER

Recharge Potential: No action The Union Water Resources Minister, while addressing the Parliamentary Consultative Committee attached to his ministry said that in the Master Plan on Artificial Recharge of Groundwater, the CGWB had identified 4.5 lakh sq km suitable for artificial recharge and an estimated 36.5 BCM water can be recharged annually. The minister can be called non sincere at best as the proposal has been pending before the ministry for years, but has not seen any serious attempt at implementation. (The Hindu 140706)

PM to address national meeting Govt of India has called a meeting of irrigation ministers of states on July 22 to discuss alarming groundwater situation & to push states to take up GW legislation. As per CGWB, 7 states (AP, TN, Goa, Pondicherry, Lakshadweep, Kerala & W Bengal) have implemented a legislation on the issue & 3 others (Maharashtra, Gujarat & HP) have passed the legislation, but has not implemented the same. 8 other states have not even passed the act. The top 4 states in terms of depletion of GW are Delhi (78% exploitation, 7 out of 9 blocks are over exploited), Punjab (75% exploitation), Rajasthan (59% exploitation, 140 of the 237 blocks are over exploited, 50 more are nearing that situation) & Haryana (49% exploitation, 55 of the 113 blocks are over exploited, 11 more are nearing that condition). (*Dainik Bhaskar* 090706)

AGRICULTURE

Farmers Cooperative in Guna 600 farmers in Guna district in MP have come together to form a cooperative to ensure good quality & good rates for fertilizers, pesticides, seeds & their produce. 6200 shares of the company have been bought by the farmers; the amount has been deposited in a bank. (*Dainik Bhaskar* 130606)

Drought like situation in Chandauli (UP) The district south of Varanasi, across the Ganges, that is considered rice bowl of Eastern UP is facing drought like situation following deficit rainfall over the last three years and falling groundwater levels. Rice production is under threat despite the good canal network built up by the erstwhile kings of Kashi kingdom. (Business Line 300606)

Bidar: Men work as bullocks Bheemrao Manigempure, a small farmer of Kadlabad village in Bidar district, North Karnataka, had work as a bullock to till his small farm, along with his son and daughter in law. The state agriculture minister and district in charge says his govt understands that Bidar is one of the poorest districts in the country and the govt is trying to help the families that need assistance. (Business Line 140706)

Organic Farming in India The demand for "organic food" is rapidly growing. Certified "organic food" is presently grown on about 31 million ha in the world (1.1 million ha in India). There are strong do's and don'ts in the production of organic food as dictated by certification agencies operating globally (in India accredited by Ministry of commerce) for which farmers have to pay certification fee. Interactions with practitioners of organic farming (OF) revealed that reduced cost of production was a stronger reason for their conversion to OF. In addition, most farmers said that their yields were not lower than the yields of their neighbors who are conventional farmers. This is a research issue for scientists. The facts that nutrients for a crop can be met through plant biomass grown at the same field and the plant protection is achieved through biological options are also research issues. At ICRISAT-Patancheru, India, in an ongoing long-term experiment completed 7 years in March '06. Farmers are encouraged to use locally available natural resources in a perspective relevant to small & marginal farmers that form the bulk of farmers in developing countries (74% in India). (From abstract of a paper by OP Rupela *et al*, April '06)

Monsoon Forecast The India Meteorological Dept has slightly lowered the expectations of rainfall from 93% predicted in April to 92% now of the long period average with a model error of plus or minus 4%. The rain in July is expected to be 97% of LPA with a model error of plus or minus 9%. In region wise forecast for whole monsoon season, IMD estimates are: 97% for South peninsula, 90% for the Central India (including the western states), 91% for northwest India (including the eastern states) and 94% for northeast India. (The Hindu 020706)

QUOTES

Growth rates and people "The results of the (May '04) Lok Sabha elections are ample testimony to demonstrate how the majority of voters did not see an 8% growth rate, as a case of India shining. There can be no doubt that in some cases, such development passes them by. But there are instances where it is at great personal cost to them. The Narmada dam and the situation of those it has displaced, is perhaps the most well known of these cases."

"Despite better rehabilitation for tribals being an explicit assurance of NCMP (National Common Minimum Programme), even existing policy and Supreme Court orders were violated as borne out by the report of the GOM (Group of Ministers) constituted by you. Despite the report of the GOM, apparently for reasons of political expediency, construction on the dam continues at the cost of people yet to be rehabilitated even as per laid out norms. As this govt considers adopting a new rehabilitation policy, it will have to come to terms with the crisis of credibility and confidence due to decisions taken that violated NCMP assurances."

Aruna Roy to the Prime Minister, June 21, 2006, while resigning from National Advisory Council

Vidarbha Farmers across the land will doubtless be ecstatic on learning there is now one more committee — to look into debt relief. Gee, another committee. Just what we needed. Who knows, it might even do something, like form a sub-committee. It's all part of a 'package.' Govts in this country have handled more packages than FedEx. My all-time favourite is the Kalahandi-Bolangir-Koraput or KBK package, which has outlasted four PMs and seen more variations than Rubik's Cube.

Every imaginable programme for which funds already exist has been merged or purged from the KBK development package at some point. A Rs 4,750 crore package swelled to Rs.6,500 crore over a decade. Of which only Rs 360 crore actually showed up till '04. Even from that paltry sum, money was diverted for the total literacy programme.

The 'package' declared at the end of PM's trip to Vidarbha will have little or no impact on the crisis there. Neither in the short run nor in the long term. The question will be asked — will farmers' suicides in Vidarbha halt now that there's a financial 'package'? The answer is no. The number of suicides in the 10-day run-up to his trip: 34. The number in 10 days after he left: 34.

The first thing the PM could have done or made the State Govt do, was to restore the 'advance bonus' of Rs 500 a quintal for cotton. The State withdrew this in May '05. If suicide numbers were high when the price of cotton was Rs 2,250, how could things get better when it fell to Rs 1,700 a quintal? That too due to state policy?

Had there been a waiver of debt of up to just Rs 25,000, more than 80 % of Vidharbha's farmers would no longer have owed the banks money. People thought that waiver would come. It didn't and the sense of being let down is great. Indebtedness amongst farm households across the country has almost doubled in the past decade.

The interest waiver of Rs 712 crore mainly helps banks that have been hostile to farm lending. The move does not put a new rupee in the farmer's pocket.

The package gives Rs 2177 crore to 82 major & medium and 442 minor irrigation projects in the six districts it covers. Much of this simply draws money from existing programmes. If all these schemes were completed tomorrow, they would not add 3% of acreage to irrigated area. That, in a region where irrigated land adds up to just 11 % of the total. Sure, people want water. But all problems are not due to lack of irrigation. Distress suicides have occurred in irrigated parts of Punjab & AP.

There was and is total silence on the Maharashtra Water Resources Regulatory Authority Act, 2005. This regressive law puts irrigation beyond the reach of all except corporate farmers. It could raise irrigation costs by thousands of rupees per acre. It also allows an unelected authority to compel farmers to use drip or sprinkler irrigation. Those unable to pay the huge rate hikes in the offing could face fines of up to ten times the new charges. They could also face six months imprisonment. And yes, farmers with more than two children pay one and a half times those rates anyway.

It has nothing for the 85 % non-irrigated farmers. Its gift of Rs 225 crore for horticulture & Rs 87 crore for drip irrigation will touch only those who have access to water.

There is also not a whisper of incentives for food crops in the 'package.' The rebirth of jowar would have helped farmer, soil, and food security. Suicides are far higher among cash crop farmers than among food crop growers here. It would also have seen the revival of livestock — jowar is where the fodder comes from. Instead, there is Rs 180 crore for "seed replacement." This sounds like gifting big bucks to people pushing Bt and other exotic seed that would further ruin farmers here.

P Sainath (The Hindu 140706)

Vidarbha, Marathwada and Konkan, the other three regions (of Maharashtra), became sort of colonies of the sugar empire (of Western Maharashtra).

Kumar Ketkar (Indian Express 300606)

Wheat Export The country was bringing in wheat from Australia at a time when Food Corp godowns were feeding rats with tonnes of grain... The Reforms with a human face was an empty slogan. Reforms and human face will not go hand in hand.

Union Panchayati Raj Minister Mani Shankar Iyer
(The Economic Times 300606)

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I read article "Science, Development and the Temples of Modern India" by Devashis Chatterjee in *DRP* issue of June 2006. Congratulations on having put the matter in such clear perspective. I do wish that somehow the last two sentences could be conveyed with all due respect to our President Kalam.

Maj Gen (Retd) S Vombatkere

I found the piece by Devashis Chatterjee excellent and stimulating.

Peter Bosshard, International Rivers Network, Berkeley, USA

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