September 7, 2009

Dr. Manmohan Singh, Prime Minister of India, New Delhi.

Subject: Large dam juggernaut in Northeast India ignores downstream impacts on Assam

Hon'ble Prime Minister,

Greetings from Assam! We write to you both as the Prime Minister of the country and a Member of Parliament representing our state. We are a group of citizens and civil society groups from Assam gravely concerned by the manner in which the Central Government is ignoring issues vital to the general public while granting permissions to large dams in the Northeast of India. While there are a whole range of concerns about these large dams planned in this geologically and ecologically fragile, seismically active and culturally sensitive region, for the present we shall focus primarily on the downstream impact issues which are critical for the state of Assam which lies in the Brahmaputra floodplains.

Downstream impacts ignored

While our nation claims to have taken giant strides in the advancement of scientific knowledge, our government seem to be in denial about basic facts of nature known to the *aam aadmi*: that a river flows downstream. This is evident from Terms of Reference (ToR) for Environment Impact Assessment (EIA) studies granted by the Ministry of Environment & Forests (MoEF) for at least three dozen large dams in the Northeastern region in the last two years, which ask analysis of downstream impacts to be restricted between the dam and powerhouse only! While a general clause under the EIA notification requires baseline data to be collected in a 10 km. radius of the project (including downstream), the actual prediction of downstream impacts has been asked to be specifically restricted between the dam and powerhouse. This has happened even though the downstream impact issue has become a major issue of conflict in the region in recent years and the MoEF and its Expert Appraisal Committee (EAC) on River Valley & Hydroelectric projects have been repeatedly requested to address downstream impacts and risks during the environmental decision-making process. Such repeated and deliberate denial of vital downstream issues is unacceptable to us.

When large dams block the flow of a river, they also trap sediments and nutrients vital for fertilizing downstream plains. They alter the natural flow regimes which drive the ecological processes in the downstream areas. For example, beels (wetlands) constitute an important part of the Brahmaputra valley and there is great livelihood dependence on these (e.g. fishing based livelihoods). The ecology of these *beels* is directly connected with the ecology of the rivers (for example stocking of fish in the beels takes place through the rivers in the monsoons) and any interventions on the rivers will impact this relationship. But there has been no study of the impacts on *beels* while deciding the viability of upstream dams. Why? The chapories (riverine islands and tracts) of the Brahmaputra river basin are dependent on the nutrients in these rivers for agriculture and dairy-based livelihoods. There is no study of the impact of this trapping of nutrients behind dams on agriculture on chapories downstream. This is unacceptable. Boulders are the first line of defence against floods and the construction of these mega dams involve the extraction of massive quantities of these boulders from the river beds. For example the 3000 MW Dibang project will involve the extraction of 32 lakh truckloads of boulders from the Dibang river and its tributaries, an area identified as an Important Bird Area (IBA) and a potential Ramsar site (wetland of international importance). The project authority has not come to take account of this, raising grave suspicion.

Instead of doing comprehensive downstream studies, we are being given false assurance about these projects being 'environmentally benign' because most of them are 'run-of-the-river' (RoR) projects. This is an ecological lie by the government. Let's take the example of the 2000 MW Lower Subansiri

project (a so-called RoR project). In the winter months (lean season) there is a more or less uniform flow throughout the day in the Subansiri river ranging between 250 to 550 cumecs (cubic metres per second). This maintains the downstream ecological balance and nourishes the Subansiri river valley as per the seasonal requirements. The government has tried to convince us that there will be no downstream impact and we have nothing to worry as the total daily flow in the river in a day will remain the same after the coming up of the dam. But what the government 'forgot' to tell us was that for 20 hours in a day in the lean season the flow will be only 6 cumecs! Then for a period of only four hours the flow will increase 400 times in volume to 2400 cumecs as the project is a peaking power plant. Thus the bulk of the flow in a 24 hour period will be released in only a very short period of four hours in the downstream areas. It is obvious that such a drastic change in the natural flow patterns has to have an impact in the downstream areas which are nourished by the river system. This is what evidence from global studies done on peaking power plants also tells us. Why are we in denial then? How can we claim that the release of a large volume of water in four hours (while the river stays almost dry for twenty hours) can meet downstream ecological needs? It is like telling us that it is perfectly normal (with no negative impacts) to consume the total food intake we have in a full day in a single daily meal!

Environmental risks

Environmental risk assessment in downstream areas has also been very poor too in the North-eastern projects. A downstream flood risk due to sudden releases of water from upstream reservoirs in the monsoons is an important area of concern which needs proper study. Frequent occurrence of such dam-induced floods is likely in the geo-environmental setting of the Eastern Himalayas and the public cannot be fooled by saying that dam-induced floods take place only during 'dam-break', the occurrence of which is rare. The downstream is also subject to considerable risks during the construction stage, a fact ignored in the decision-making process. In a publication on 'Perspectives for Planning and Development in North East India' published in 1998, Dr. Vincent Darlong (a scientist who has worked for the Northeastern regional office of the MoEF in Shillong), authored a piece on impact assessment of dams in the region. Giving the example of the 405 MW Ranganadi Stage - I project, he said that the EIA report had not considered any aspects downstream impact of the dam site. He also noted that the construction work, which was at an advanced stage then, had also led to heavy sedimentation in the river and that "the impact of sedimentation is visible 100 km. downstream of the river in form of decrease in fish population, which in turn is affecting a dependent fishermen community." In the 2000 MW Lower Subansiri project the repeated washing away of the coffer dams in the monsoons (an expected phenomenon as per official plans) has led to heavy sedimentation in the downstream areas. While 'geological surprises' continue to be a major environmental risk in hydropower projects, the CAG in its recent report on NHPC and NEEPCO has pointed out that considerably less time and money than is necessary is being spent on the crucial geological Survey & Investigation in hydropower projects. This is matter of grave concern for us in the geologically fragile North-eastern region. If this is the case with the supposedly experienced PSUs, what can we expect from the reckless private sector dam builders which have thronged the Northeast now? In the same report, the CAG has also pointed out that two landslides too place in 2005 and 2008 at the Lower Subansiri powerhouse site. One was due to non-implementation of recommendations of geologist and the other was due to non-implementation of support measures suggested by Design Division. This is a cause of serious worry for us.

While the government and power companies are in denial about the downstream impacts of dams, the office of NEEPCO's Ranganadi hydroelectric project has issued a circular on June 2, 2006 in the project area and it's downstream. Extracts of this circular are reproduced below:

"...the gates of Ranganadi diversion dam may require opening from time to time...all villagers, individuals, temporary settlers, etc., residing on the banks of river and other nearby areas...and on the downstream of the dam to refrain from going to the river and also to restrict their pet animals too from moving around the river/reservoir during the monsoon period. The Corporation will not take any responsibility for any loss of life of human, pet animals etc. and damage of property and others due to carelessness of the individual and the responsibility on such losses/damages will be rest on the *defaulters only* ..." This communication is utterly shocking and is indicative of a technocracy with a colonial mindset. While it is understandable that people should be careful and restrict their movements near the river if an early warning has been issued at a specific point of time, NEEPCO has issued a general warning to people whose entire life revolves around these rivers to 'refrain from going to the river' during the entire monsoons! Persons who go near the river in the entire monsoon period have been termed as 'defaulters'! On the one hand the government issues circulars asking people whose lives revolve around rivers to stay away from them in the areas downstream of a dam. On the other hand, it keeps saying dams have no downstream impacts! What kind of governance is this?

Dams and flood

Another issue which keeps being told to us is that the dams will benefit Assam as they will moderate floods. If the dams will indeed benefit Assam, why is the Central Government so reluctant to commission detailed downstream impact studies? Whether large dams can effectively moderate floods or not is a debatable issue. But even as per the official plans, only one project out of the 103 hydropower projects for which agreements (MoUs) have been signed by the Arunachal Pradesh government till June 2009 is a multipurpose project with a flood moderation component. This is the 3000 MW Dibang Multipurpose project. Major projects granted to private players on several rivers (e.g. 2400 MW Siang Lower on the Siang river and 1750 MW Demwe Lower on the Lohit river) do not have any flood moderation components as per official plans; therefore there is no question of these dams moderating floods. Rather these dams will exacerbate the already grave flood problem of Assam as was evident from the June 14, 2008 Lakhimpur flood caused by sudden release of water from Ranganadi Hydro Power project. The left bank embankment of Ranganadi, railway track and a portion of NH-52 was washed away; 11 persons were killed, hundreds of villages were inundated and paddy cultivation destroyed. We apprehend that such incidence will occur regularly once all these dams are constructed in Arunachal Pradesh. Therefore, whether the project has a flood moderation component or not, we want comprehensive downstream impact studies and public consultation to be part of the process to determine the viability of these projects.

The EIA farce

Your office (PMO) did ask for downstream impact studies to be done in the Lower Subansiri project in 2006, but only after the construction work had begun. Downstream impact concerns were raised since 2001, but were ignored while granting clearance to the project in 2003. The second phase of the downstream impact study of the Lower Subansiri project was commissioned to an expert committee formed by Government of Assam constituting members from Gauhati University, Dibrugarh University and IIT Guwahati. This committee in its February 2009 interim report has raised concern about the very location and foundation of the dam on geological grounds and has asked for all work to be stopped on the project till the full downstream study has been completed. But this has been ignored by NHPC and work continues. In the 1500 MW Tipaimukh hydroelectric project citizens had raised concerns about the downstream impact on southern Assam at an early stage. But the MoEF only asked for downstream impact assessment studies as a post-clearance condition in its environmental clearance letter of October 2008: "Due to construction of the dam, downstream impacts of the project in the State of Assam should be studied." What is the use of prescribing post-clearance downstream impact studies as a formality? It was only recently that the MoEF for the first time prescribed partial downstream impact studies for a project before grant of clearance (3000 MW Dibang Multipurpose project). But the ToR in this case too does not ask for comprehensive downstream studies, which is an imperative necessity and has been repeatedly demanded by people in the region.

You have also gone ahead and announced several joint mega hydel projects with Bhutan, without assessing the downstream impact on Assam. For example the 720 MW Mangdechhu hydroelectric project is upstream of the Manas Tiger Reserve and will alter flow patterns and impact riverine ecology of the Manas river flowing through the Tiger Reserve.

Cumulative impacts

With at least 135 projects for 57,000 MW proposed in Arunachal Pradesh alone, the issue of cumulative impacts of projects (including in downstream areas) assumes great significance. Your government has failed to implement an April 2007 order of the National Environmental Appellate Authority (NEAA) in which an 'advance' cumulative study of series of different dams coming up in a river basin has been felt necessary. The Planning Commission Task Force on 'Governance, Transparency, Participation and Environmental Impact Assessment' in the Environment and Forest sector for the XIth Five Year Plan in its December 2006 report had also recommended the need to "conduct impact assessments of the combined effect of projects within the same basin, or across basins where the impacts are related; these should be based on carrying capacity studies of the ecosystems in the concerned basins..." Decisions on whether to grant or reject clearance to an individual project need to be based both an individual and cumulative impact assessment of projects in a river basin done in advance. The MoEF did prescribe river basin studies in the case of two river basins in Arunachal Pradesh (Bichom and Lohit) where multiple projects are coming up, but has strangely de-linked the clearance of individual projects from the results of the cumulative studies. For example in the Lohit river basin the EAC on River Valley & Hydroelectric projects decided that: "The Environmental Clearance to Demwe Upper and Lower HE Project should not be linked with the completion of basin studies." It was therefore decided to de-link the environmental clearance of the Demwe (Upper and Lower) projects from the river basin study, even though these two projects constitute 44% of the hydropower proposed to be generated in the river basin! What is the use of doing a full river basin study when the clearance of individual projects is not linked with the river basin study? Therefore, we have a situation where public hearings for the 1750 MW Demwe Lower project (Lohit river basin) were held on August 11th and 12th but the project will soon be considered for environmental clearance. But the Lohit river basin study (considering cumulative impacts of six mega projects) will be completed only by the end of the year! We were shocked to learn that this 'delinking' of the clearances of the 1750 MW Demwe Lower and 1800 MW Demwe Upper project from the Lohit river basin study was done by the MoEF EAC chaired by Mr. P. Abraham, a Director of PTC India Ltd., one of the promoters of the Demwe Upper and Lower projects! What kind of governance is this? Although the MoEF has taken action leading to the resignation of Mr. P. Abraham as Chairman of the EAC, it has taken no action to reverse these conflict-of-interest ridden decisions of the Abraham committee.

The way forward

The above mentioned scenario is leading to a situation wherein the long-term social and environmental security of the Northeast in general and Assam in particular is being severely compromised. The last few years have seen strong protests and movements in Assam against imposition of involuntary risks on downstream populations through arbitrary decision-making on upstream dams. Recent discussions in the Assam Legislative Assembly have led to the setting up of an Assembly panel to investigate the issue and this enquiry is currently ongoing.

When the government is unable to address our concerns, it is also resorting to an explanation that trade-offs are required to meet our development and power needs. We would like to clearly point out here that such explanations cannot be used as a fig leaf to cover up for shoddy impact assessment and appraisal of projects, as well as the involuntary imposition of these mega projects on us in the region. We want comprehensive impact assessments by credible persons and institutions in consultation with local communities. Based on such studies and consultations, and an appraisal process which respects the precautionary principle, we can decide which projects need to be shelved and which can be allowed. It is only for the projects which are allowed to go ahead after careful scrutiny and public consultation that we will discuss issues related to trade-offs, appropriate compensations etc. We will not engage in discussions on trade-offs on projects which inherently carry major risk to the downstream people and the environment. Till such a process is in place for carrying out comprehensive individual and cumulative downstream impacts of dams in advance and a credible

public consultation process in downstream areas, we demand a moratorium on clearances to all dams in Northeast India.

We additionally demand the following:

- Immediate stoppage of all work on the 2000 MW Lower Subansiri project till the ongoing study on downstream impacts is completed.
- Revision of Terms of Reference (ToR) for EIA studies already granted to hydropower
 projects in the region to include comprehensive downstream social and environmental impact
 assessment. Regional experts and local citizens should be consulted while prescribing ToR
 for such studies.

We hope your government gives this critical issue the importance it deserves. The Brahmaputra river basin is our lifeline and addressing these issues is essential to ensure the long-term social and environmental security of Assam.

With regards

Yours faithfully

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