

October 13, 2010

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

Subject: Seeking a moratorium on clearances for large dams in Northeast India; withdrawal of clearances granted to 2000 MW Lower Subansiri, 1750 MW Demwe Lower & 1500 MW Tipaimukh; future steps on hydropower projects and dams only after full, prior and informed consent of people in the region

Dear Dr. Singh,

Greetings from Assam! We write to you on behalf of the Krishak Mukti Sangram Samiti (KMSS), a grassroots peasants' movement in Assam. In September 2009 we had co-ordinated a joint memorandum of Assamese civil society groups to you on our concerns regarding downstream impacts of dams in the Northeast. We did not get any response from you both as the Prime Minister of the country and a MP from Assam on the issues we had raised. This is an updated version of that memorandum we are sending one year down the line and we hope that this gets the urgent attention it deserves.

We are gravely concerned by the manner in which the Central Government is subverting critical issues 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, this particular communication will 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 50 large hydroelectric projects in Arunachal Pradesh since September 2006, which ask for downstream impact assessment to be restricted to only 10 km. downstream of the project.

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. Out of 54 projects granted pre-construction clearances in Arunachal Pradesh in recent times, only a couple of recent projects require downstream impact assessment beyond 10 km.

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. Why? 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 been asked to study the impact of this. Why?

Instead of doing comprehensive downstream studies, we are being given false propaganda about these projects being 'environmentally benign' because most of them are 'run-of-the-river' (RoR) projects. This is an ecological lie being told to us 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 approximately ranging between 300 to 500 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 impacts 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 to 2560 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. The water flow will drastically vary between 2 per cent and 500 -800 per cent of normal flows on a daily basis! 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 meal once a day! Such massive fluctuations on a daily basis will drastically alter natural flow regimes. The flow during peak load hours in the Subansiri in winter will be equivalent to monsoon flows and will cause a 'winter flood' drowning drier riverine tracts used both by people and wildlife on a daily basis in winter. The downstream livelihoods and activities likely to be impacted by this unnatural flow fluctuation include: fishing, agriculture (e.g. mustard), river transportation and livestock rearing in grasslands for dairy-related livelihoods. Similarly the Lohit river will see a uniform winter flow of approximately 400 cumecs fluctuate between 35 cumecs and 1729 cumecs on a daily basis after the commissioning of the 1750 MW Demwe Lower project. This is likely to impact both people's livelihoods as well as critical downstream ecosystems such as the Dibru-Saikhowa National Park. The multiple large dams coming up on various major tributaries of the Brahmaputra will also cumulatively impact critical areas such as Majuli island and Kaziranga National Park in the downstream.

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 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 inexperienced private sector dam builders which have thronged the Northeast now? In the same report, the CAG has also pointed out that two landslides took 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. Further, as pointed out earlier, the Expert Committee studying the downstream impacts of the project has already indicated the inappropriateness of the dam of such dimensions at the present site due to the geological and seismological sensitivity of the area.

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 its 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 completely 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 moderation

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 over 120 hydropower projects for which agreements (MoUs) have been signed by the Arunachal Pradesh government till June 2010 is explicitly described as 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. 2700 MW Siang Lower on the Siang river and 1750 MW Demwe Lower on the Lohit river) are not multipurpose projects as per official plans; therefore there is no question of these dams moderating floods. 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

The 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 constituting members from Gauhati University, Dibrugarh University and IIT Guwahati. This committee in its February 2009 interim report had raised concern about the very location and foundation of the dam on geological grounds and had asked for all work to be stopped on the project till the full downstream study has been completed. But this had been ignored by NHPC and work continues. In its final report submitted in June 2009, the expert committee has clearly recommended the following:

"...The selected site for the mega dam of the present dimension was not appropriate in such a geologically and seismologically sensitive location...Therefore, it is recommended not to construct the mega dam in the present site..."

But despite this, work still continues at the project site. 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.”* The same story has been repeated in the 1750 Demwe Lower project. The project was granted environmental clearance in February 2010 without downstream impact assessment in Assam. Instead a post-clearance study till Dibrugarh in Assam has been asked for.

What is the use of prescribing post-clearance downstream impact studies as a formality after deliberately avoiding pre-clearance studies despite this issue being repeatedly brought to the notice of the EAC and MoEF? It was only recently that the MoEF for the first time prescribed partial downstream impact studies for a couple of projects before grant of clearance (3000 MW Dibang Multipurpose project and 2700 Lower Siang). But the ToRs in these cases too do not ask for comprehensive downstream studies, which are a necessity and has been repeatedly demanded by people in the region. We are gravely disappointed with this kind of decision-making by the MoEF and its Expert Appraisal Committee (EAC) on River Valley & Hydroelectric projects. Such an approach essentially considers virtually all projects as a *fait accompli* instead of giving grant/rejection of clearance an equal opportunity based on comprehensive impact assessment, public consultation and use of the *precautionary principle* as a basis for decision-making.

GoI has also gone ahead and announced several joint mega hydel projects with Bhutan, without assessing the downstream impacts 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. The MoEF 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 a couple of river basins in Arunachal Pradesh (e.g. 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? In a recent litigation challenging the environmental clearance to the Demwe Lower project, the MoEF has justified delinking of individual environmental clearances from cumulative studies in the Lohit river basin by quoting similar recommendations of the Inter Ministerial Group (IMG) set up to accelerate hydropower development in the Northeast. But such recommendations and decisions appear to be treating cumulative impact assessments as a formality. Further, river basin studies already commissioned are not looking at projects in the entire river basin. For example, the river basin study commissioned for the Lohit river basin is not looking at the 11 projects proposed in the entire river basin, but just the six projects on the main Lohit river. Similarly, cumulative impact assessment of projects on the Emra river in the Dibang river basin has been asked for, without looking at the overall impacts of dams in the Dibang river basin where there has been intense opposition to projects such as the 3000 MW Dibang Multipurpose project.

It is also important that such studies are done by multidisciplinary groups with full participation of local communities. Such studies also need to be up for public scrutiny and independently monitored. Unfortunately the current trend in this respect is rather unsatisfactory. The river basin studies for the Bichom and Lohit river basin studies have been awarded to the Water and Power Consultancy Services (WAPCOS) which is a body under the Ministry of Water Resources and essentially has always taken a pro-large dam position through all its work so far. We need impartial studies to enable genuine environmental decision-making, not studies which are only used to justify the existing ideological position of MoWR and bodies under it on large dams. The IMG report on NE hydro has also recommended the Central Water Commission (CWC) do the river basin studies for Siang and Subansiri river basin. The CWC again is a technocracy driven pro- large dam organisation, unlikely to deliver impartial studies on the social and environmental impacts of dams, including options to reject projects.

Although the EAC on River Valley & Hydroelectric projects has recently (July 2010) recommended cumulative downstream impact assessment of dams in the Brahmaputra river basin on the state of Assam, it has again not halted granting clearances (including pre-construction clearances) to individual projects pending such a study.

No public consultation in Assam

An important part of the environmental decision-making process is Public Consultation. Despite repeated submissions, the EAC/MoEF have failed to prescribe for public hearings in downstream Assam. In projects such as 1500 MW Tipaimukh and 1750 MW Demwe Lower, downstream impact assessment was only allowed as a post-clearance condition as indicated earlier. Despite being impacted by these projects, no public hearings have been held in the downstream affected areas.

In projects such as 3000 MW Dibang Multipurpose project and 2700 MW Lower Siang, partial downstream impact assessment in Assam has been prescribed before clearance, but again no public hearings have been asked to be conducted. If Assam is in the impact zone of the project, why are no public hearings being held in the state? This is clearly undemocratic and a clear indication that the mega dams are merely being thrust on us involuntarily.

A Public Consultation in Guwahati, September, 2010

During a public consultation in Guwahati, also attended by Union Minister of Environment and Forests, people of Assam and representative of Arunachal Pradesh categorically rejected the idea of mega dams in the river Brahmaputra and its tributaries. People have asked questions about the blatant business interests behind these mega dams and castigated the Indian government for failing to uphold environmental governance. That the voices of sufferers have been completely rejected while undertaking these mega dams, in the name of development became clear during the public consultations. The Union Minister for Environment and Forests himself could listen to a massive number of poor people from various downstream and their concerns and sufferings.

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.

In this respect the report of **the Expert Committee from IIT Guwahati, Gauhati University and Dibrugarh University** has been a significant development. This is the first time that an impact assessment has been done in the region under public scrutiny and accountability to the public at large. Otherwise we have repeatedly seen New Delhi based consultants hired by power developers (with no accountability to the

public at large) producing reports only to justify projects of their clients with no concern for the ecological or social security of our region.

The scientific/technical recommendations of the Lower Subansiri expert committee clearly suggest the need for scrapping of mega dams in the Northeast, questioning the reports dished out by pro large dam technocracies on earlier occasions. This has further strengthened and reinforced the concerns of the people of the region who have been expressing concerns against the imminent dangers of mega dams.

The Expert Committee's report has been categorically endorsed by the Assam Legislative Assembly's House Committee in its report on dams submitted to the Assembly in July 2010. The House Committee's report embodies a clear political mandate against mega-dams in the region. The House Committee was set up after a major debate in the Assam Legislative Assembly in July 2009. We would also like to draw your attention to the fact that this committee has undertaken widespread discussions with different stakeholders while working on the report.

We are often told 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 credible environmental governance involving free, prior and informed consent of the people of the Northeast, we demand ***a moratorium on clearances to all dams in Northeast India.***

Our specific demands are:

- **A complete moratorium on all clearances (including pre-construction clearances) by the MoEF to large dams/hydropower projects in Northeast India.**
- **Immediate withdrawal of clearances granted to the 2000 MW Lower Subansiri project (read Scrap), 1750 MW Demwe Lower and 1500 MW Tipaimukh which were granted environmental clearance without downstream impact assessment and public consent.**
- **Commission of a special study group consisting of Independent Reviewers (including scientists, peoples representative) to study the environmental and social impact off all the existing dams in Assam.**
- **A complete review of pre-construction clearances granted and waiting to be granted clearance to projects in the region.**
- **Future steps on hydropower projects (read small dams) and dams to be taken only after full, prior and informed consent of the people of the Brahmaputra & Barak river basins.**
- **The Brahmaputra River and its tributaries to be protected as a cultural and ecological endowment of the people of the region and the country as a whole. Development plans will need to respect the environmental and cultural sensitivity of the region.**

We expect you to give these critical issues the importance it deserves. The Brahmaputra & Barak river basins are our lifeline and addressing these issues is essential to ensure the long-term social and environmental security of Assam. **We are shortly sending you this memorandum signed by One Lakh population, from cross-sections of the state, to signal and inform you about the seriousness of the situation.**

Thanking you,
Sincerely,
(Akhil Gogoi)

General Secretary,
Krishak Mukti Sangram Samiti
(electronically signed)